

State of Connecticut.

PUBLIC DOCUMENT No. 23

NINETEENTH ANNUAL REPORT

OF THE

Bureau of Labor Statistics

FOR THE

YEAR ENDED NOVEMBER 30, 1903.

Printed by Order of the Legislature.

**MERIDEN, CONN. :
JOURNAL PUBLISHING COMPANY.**

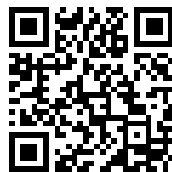
1903.



This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

<https://books.google.com>



CONTENTS.

	PAGE.
LETTER OF TRANSMITTAL,	5
INTRODUCTION,	7
PART I	
NEW FACTORY CONSTRUCTION,	17
PART II	
STATISTICS OF MANUFACTURES,	45
PART III	
ILLUSTRATIONS OF MANUFACTORIES,	195
PART IV	
DIRECTORY OF LABOR ORGANIZATIONS,	357
PART V	
STRIKES AND LOCKOUTS,	381
PART VI.	
FREE PUBLIC EMPLOYMENT BUREAUS,	471
APPENDIX.	
CONNECTICUT LABOR LAWS,	Following blue insert leaf.

Part III.

Manufactories.

- 1 ILLUSTRATIONS.
- 2 DESCRIPTION.
- 3 CAPITAL.
- 4 EMPLOYES.
- 5 WAGES.
- 6 VALUE OF PRODUCTS.

MANUFACTORIES.

It is proposed to present in this chapter of the report (Part III) illustrations and statistical data of some of the leading manufacturing establishments of the state.

This is a departure from the usual custom of the bureau, but in view of the interest displayed in that portion of the eighteenth annual report (Part IV) devoted to "Industrial History of Connecticut," it was deemed proper to devote a space to the subject along a different line. It was, therefore, determined to illustrate a number of the plants and to give in connection therewith a brief descriptive summary of each.

Of course, it could not be expected that a very great number of the establishments could be given a place in this publication, and those the illustrations of which will appear in these pages, were selected promiscuously from the number which made reports to the bureau during the fiscal year 1903.

It was desired that the most important manufacturing establishments be represented in this chapter of the report. It could not be anticipated that all of these could be included in this publication, yet the bureau made no discrimination and endeavored to secure illustrations of those plants in which the public might be most interested.

It is much to be regretted that a large establishment, manufacturing silver and plated ware, and which has constituent plants located in a variety of places in the state, did not deem it of sufficient importance to desire to be represented in this publication. In this connection, it is not out of place to say that the corporation was furnished every

opportunity for illustrations of its several factories to appear here, but its representative, to whom the bureau was referred, failed to furnish the material although abundant time was given him.

There has also been included in the description given of the different plants a brief statistical summary of the business done in manufactures in the town or city wherein the illustrated establishments are located. These data are taken from Vol. VIII, Census of the United States, issued in 1902, and includes total number of establishments considered, total amount of capital invested in land, buildings, machinery, tools and implements, cash and sundries; the amount given as salaries includes the sums paid to officials, clerks, etc., and the total wages paid includes the sums paid to producers only.

The amount given as "Miscellaneous Expenses" includes rent of works, taxes, not including internal revenue, rent of offices, interest, etc., and contract work. Cost of materials used includes cost of principal materials, including mill supplies and freight, fuel and rent of power and heat, and the value of products includes custom work and repairing. It will be interesting to note the progress made in many of the industries represented in these pages, when placed in comparison with the conditions which prevailed in the early days, when the business carried on was small and the difficulties to overcome so great.

Sufficient space cannot be given to present a description of the various enterprises which from small beginnings have grown to such great magnitude as to excite wonder, but in connection with the illustrations will be found much which will be of interest to economists. It is perhaps not out of place to exhibit here the increase in value of products in the state during the decade from 1890 to 1900 in a number of the leading industries, which was: "Ammunition 155.9 per cent.; bells 206.7 per cent.; buttons 17.2 per cent.; brass manufactures 117.5 per cent.; carriages and wagons 16.9 per cent.; clocks 45.8 per cent.; corsets 9.1 per cent.; cutlery and edge tools 85.2 per cent.; envelopes 75.7 per cent.; firearms 31.9 per cent.; foundry and machine shop

products 42.6 per cent.; fur hats 7.6 per cent.; hardware 35.9 per cent.; saddlery hardware 49.7 per cent.; hosiery and knit goods 7.2 per cent.; iron work, architectural and ornamental 82.4 per cent.; musical instruments, pianos and materials 109 per cent.; needles and pins 138.9 per cent.; plated and britannia ware 26 per cent.; rubber and elastic goods 137.2 per cent.; sewing machines and attachments 92.6 per cent.; silk and silk goods 26.5 per cent.; stamped ware 1,206.6 per cent.; and typewriters and supplies 63.1 per cent.

Of the six cities in Connecticut having a population of 20,000 or over, New Haven ranks first in value of its products, Bridgeport's rank is second, Waterbury has third place, Hartford ranks fourth, Meriden fifth, and New Britain sixth.

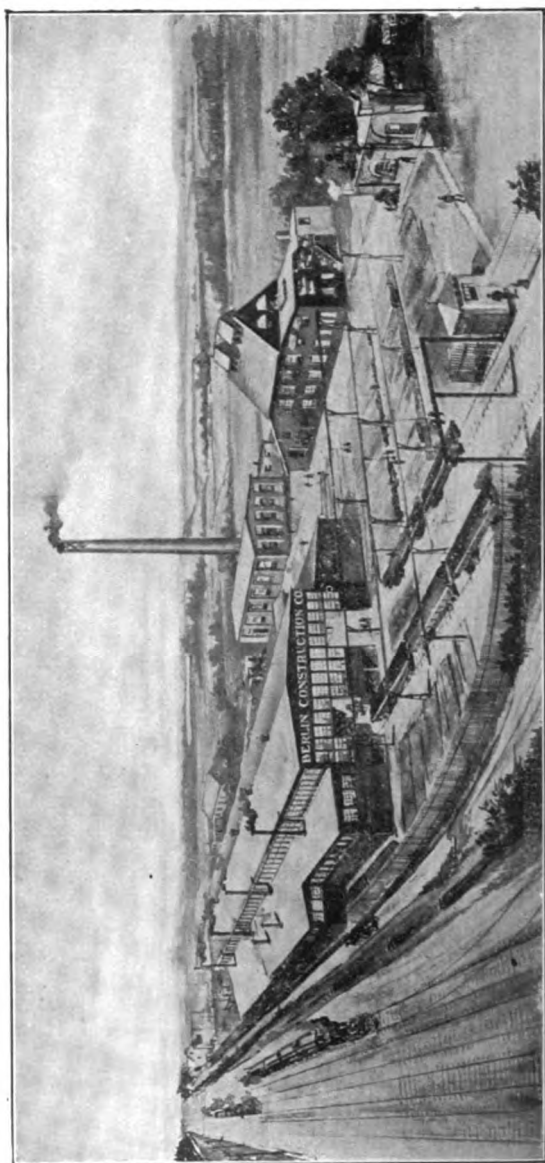


BEACON FALLS RUBBER SHOE CO., BEACON FALLS.

THE BEACON FALLS RUBBER SHOE CO.,

BEACON FALLS.

The Beacon Falls Rubber Shoe Company, which is represented here, are manufacturers of rubber boots and shoes exclusively, and are not in any way connected with what is known as the "rubber trust." The company employs about 600 hands and has floor space and manufacturing capacity for about as many more. The buildings occupied by the company are substantially and strongly constructed and have a floor space of 150,000 square feet. The company was organized under its present title by special charter in 1899, and has complete control of the water power of the Naugatuck river at this point. Its entire plant is run by water power, using about 700 horse power.



BERLIN CONSTRUCTION CO., BERLIN.

BERLIN CONSTRUCTION COMPANY,

BERLIN.

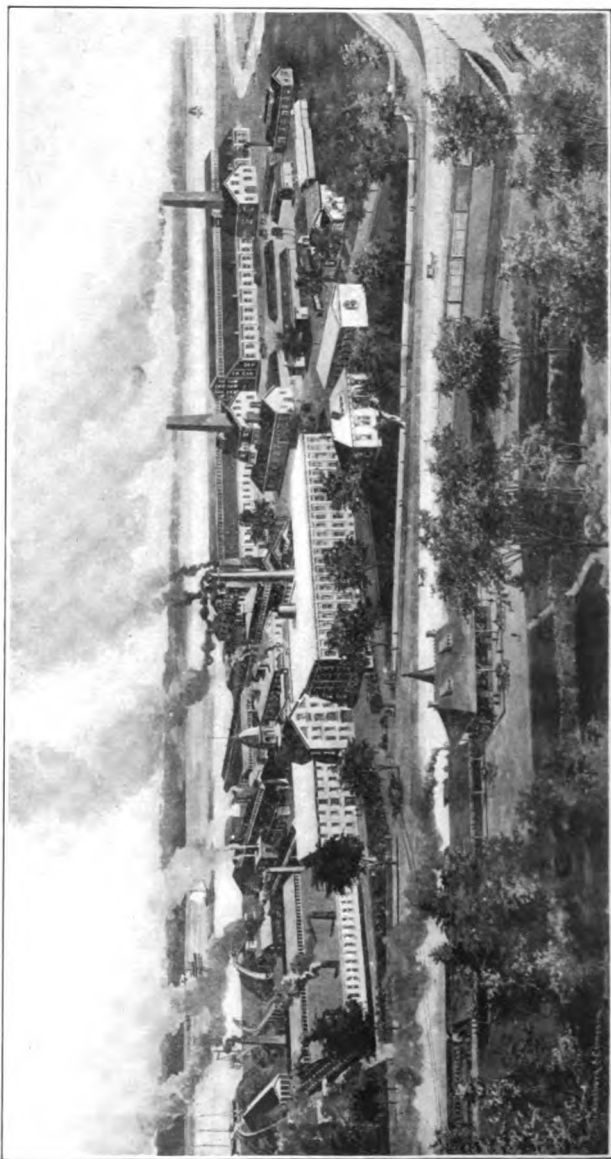
The Berlin Construction Company, of Berlin, occupies a tract of land at Berlin Junction, comprising some six acres, and is engaged in the manufacture of steel buildings, bridges, roofs and all classes of structural work such as beams, columns, girders, etc.

The principal buildings are a main shop, 90x240 feet.; a templet shop, 40 x 100 feet, in which are made the wooden patterns used in fabricating the steel; the draughting room; blueprint room, 40 x 40 feet, provided with a two-story fire-proof vault; the power house, 45x60 feet, of fire-proof construction, having brick side walls, steel roof trusses and concrete roof. These buildings, together with minor buildings, such as storehouses for erection tools, paint house, lumber house, etc., comprises the entire plant.

The shops are operated entirely by electricity and compressed air. The former is used for both light and power, having about fifteen independent motors in different parts of the plant.

The loading of the finished product is also effected by a steel crane operated by an electric hoist. Compressed air is used for pneumatic riveters, both portable and stationary; pneumatic drills, reamers and hoists. The raw material in the lower yard is handled by overhead runways by means of chain hoists suspended from trolleys.

The company commenced business in January, 1901, and has a maximum output of from 500 to 600 tons per month.



MALLEABLE IRON FITTINGS CO., BRANFORD.

THE MALLEABLE IRON FITTINGS CO.,

BRANFORD.

The Malleable Iron Fittings Co., located at Branford, was incorporated in 1864, and purchased the foundry then owned by the firm of Rogers & Hadley. Its first efforts were toward the manufacture of malleable iron pipe fittings for gas, steam and water, and this has continued to be its specialty. A large force is steadily employed on this line, of which it aims to keep in stock several hundred tons ready for prompt shipment.

Several years after its organization it commenced the making of malleable iron castings to order, and later a higher grade or semi-steel metal was introduced. This branch of the business has grown rapidly, and is now an important part of its output.

The erection of an open hearth steel furnace has just been completed, and the company is now prepared to furnish all kinds of malleable iron, steel, and semi-steel castings.

During the past year extensive additions have been made to the foundry, core, annealing and galvanizing departments, which do not show in the illustration given. The floor space of the more important buildings is approximately as follows:

Foundries	91,000 sq. ft.
Core department	36,000 sq. ft.
Annealing department	42,000 sq. ft.
Machinery department	21,700 sq. ft.
Shipping and stock rooms	17,500 sq. ft.
Galvanizing department	6,000 sq. ft.

There are other smaller departments, as necessary for such a line of goods, making a total floor space covered of over six acres. The number of persons employed has increased from about sixty at the time of the organization of the company, until nearly one thousand names are now on the pay roll.

The product is distributed mainly through the Eastern, Central and Southern States, with a large export trade,

principally to points in Europe; and latterly a number of articles, other than its pipe fittings, have been completely finished before their shipment from the factory, for which purpose an extensive machine shop has been equipped.

The executive officers of the company are:

Mr. A. C. Walworth, President.

Mr. A. E. Hammer, Treasurer and General Manager.

Mr. V. T. Hammer, Superintendent.

Mr. L. J. Nichols, Secretary.

BRANFORD.

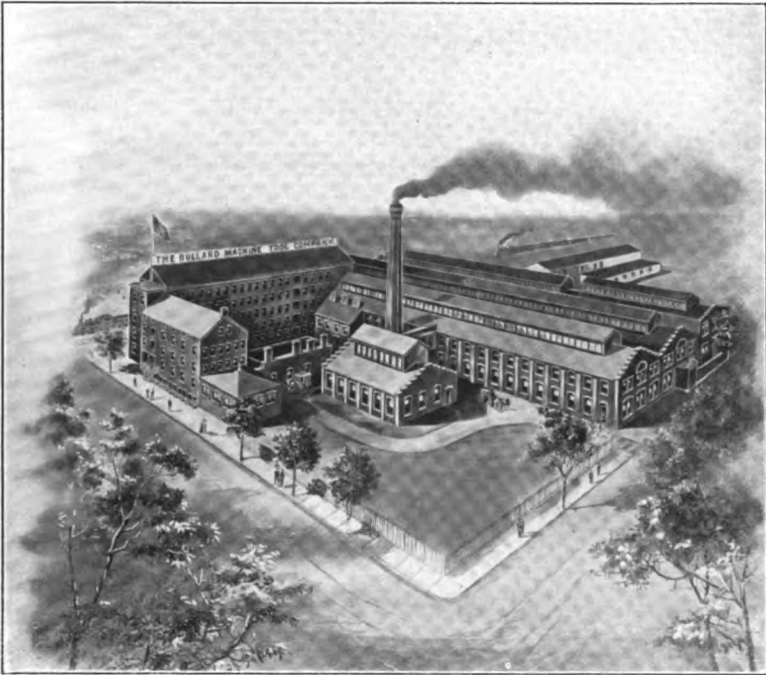
Following is some statistical data concerning the town of Branford, which is taken from the United States Census report for 1900, issued in 1902:

All industries	40
Total capital	\$802,721
Salaries	\$31,652
Average number of wage earners	908
Total wages	\$426,952
Total miscellaneous expenses	\$40,871
Total cost of materials used	\$239,507
Value of products	\$917,147
Annual earnings per employe	\$470.21

THE BULLARD MACHINE TOOL CO.,
BRIDGEPORT.

This business was established in 1880 and conducted under the name of the Bridgeport Machine Tool Works until 1894, when it was incorporated under the present name.

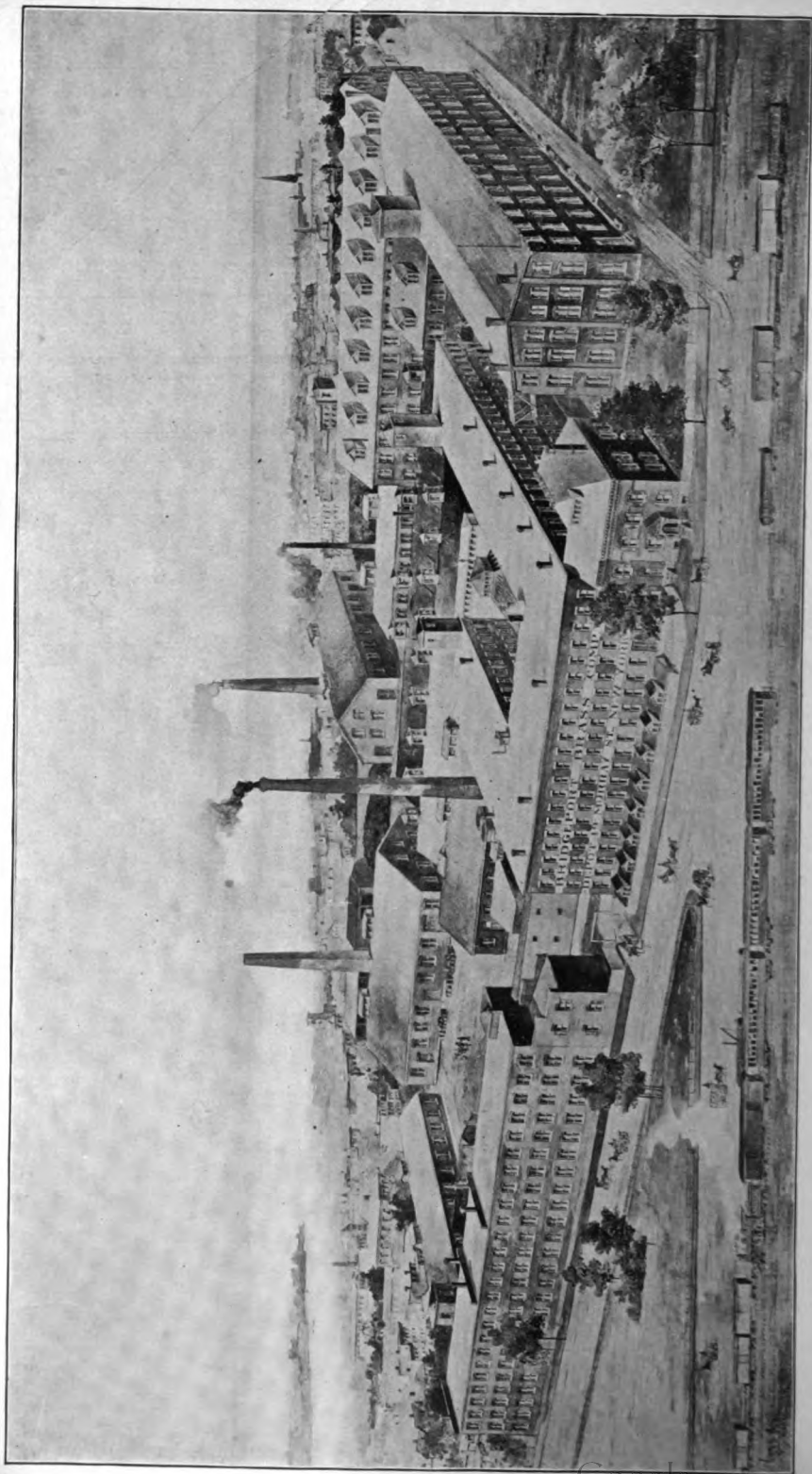
At the time the business was started it was to manufacture engine lathes, and the line gradually broadened to cover turret machines and boring and turning mills. For many



BULLARD MACHINE TOOL CO., BRIDGEPORT.

years past the company has made a specialty of boring and turning mills from 30 up to 120 inches in diameter, although it is at present producing a limited line of turret machines and an especially heavy rapid production lathe.

Its original purchase of land and buildings has been added to from time to time until it is now occupying buildings having a floor space of 100,000 square feet.



BRIDGEPORT BRASS CO., BRIDGEPORT.

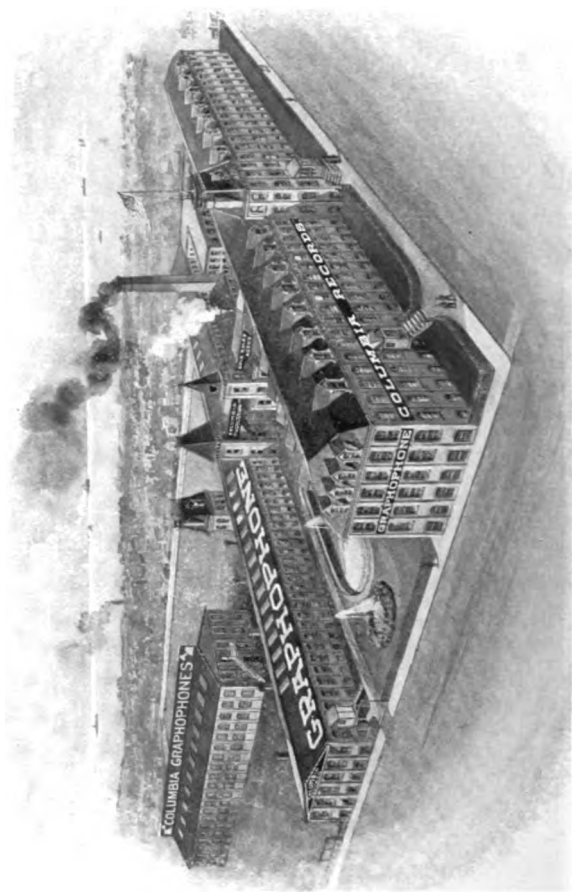
THE BRIDGEPORT BRASS CO.,

BRIDGEPORT.

The Bridgeport Brass Company started in business in 1865 but is now working under a charter obtained from the Legislature in 1882. They originally manufactured hoop skirt trimmings and sheet brass, afterwards starting a wire and tube mill.

At the present time the floor space occupied, not including offices, covers an area of 234,000 square feet. The Company is now engaged in the manufacture of brass, copper and german silver, sheet, rods, wire and brazed and seamless tubing, and manufactured goods of great variety.

At the time the bicycle business was at its height this company was famous for its Search-Light oil and gas lanterns. They now make in great quantities electrical goods, gas and kerosene burners, bicycle pumps, plumbers' torches, gongs, automatic screw machine work, etc.

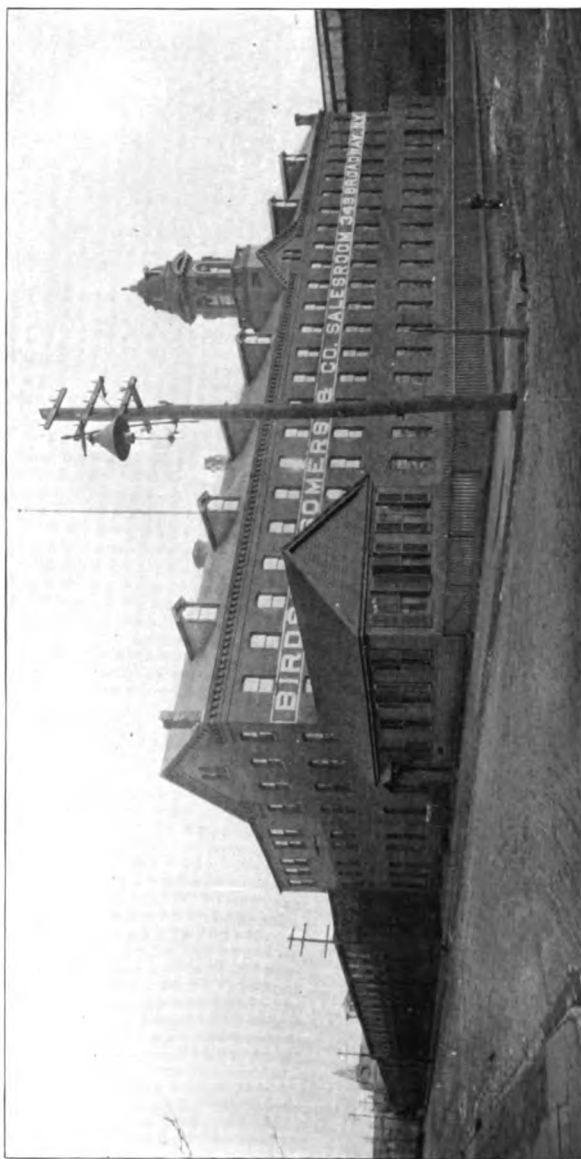


AMERICAN GRAPHOPHONE CO., BRIDGEPORT.

THE AMERICAN GRAPHOPHONE COMPANY,

BRIDGEPORT.

The American Graphophone Company, of which the Columbia Phonograph Company is the sole sales agent, was reorganized in 1893, by Edward D. Easton, now president and general manager of both companies, and when in that year it moved from quarters formerly occupied in East Bridgeport, to its present premises, corner of Hancock and Railroad Avenues, its operations were conducted in a small part of one of the several buildings that now compose its enormous plant. At that time it was one of many tenants who occupied the various buildings now wholly devoted to the manufacture of talking machines and records, and which have been purchased from previous owners and added to, from time to time, until a plant has been established which, including real estate, buildings and machinery, is valued at \$3,000,000.00. In 1893, as at the present time, the American Graphophone Company manufactured talking machines and supplies, exclusively, its product reaching three or four machines and a few hundred records per diem. With its enlarged facilities, which have been expanded year by year, the regular product of the factory is now from six to eight hundred graphophones and from fifty to seventy-five thousand records per diem. During the busy season, by running overtime, it has not been unusual to make and send out more than a thousand machines in a day and to ship upward of a hundred thousand records. The floor space of the several buildings occupied by the Graphophone Company is 200,000 square feet and the number of men and women employed is about 1,500.



BIRDSEY & SOMERS, BRIDGEPORT.

BIRDSEY & SOMERS,

BRIDGEPORT.

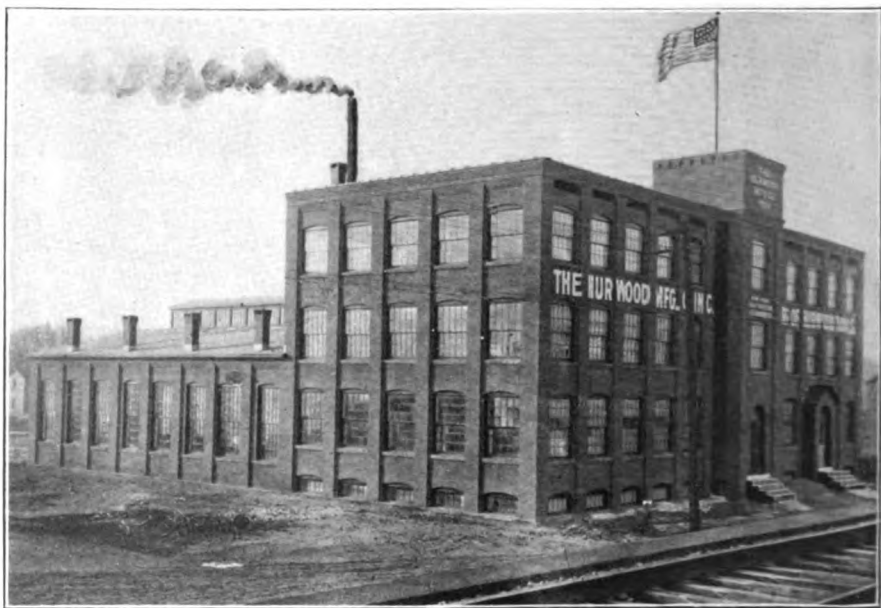
As a city of great advantage, both natural and acquired, and as a center of vast industrial and mercantile interests, Bridgeport compares favorably with other progressive cities of the United States. Prominent among her large manufacturing concerns is that of Birdsey & Somers, which has its location on Noble avenue, corner of Burroughs street. It was about twenty-five years ago that Mr. I. W. Birdsey established this enterprise, which was originally located in Derby, Connecticut. A branch was established in this city in 1880. The Derby plant was continued until 1898, when it was removed to Bridgeport and consolidated with the Bridgeport plant. This concern is a large manufacturer of corsets, and is among the three or four most prominent concerns in that line in the United States. The buildings are substantial brick structures, and they are thoroughly equipped with improved machinery and appliances. About 800 skilled operatives are employed and the factory proper occupies about 80,000 square feet of floor space. The sales-rooms are in charge of Mr. T. F. Somers, the other member of the firm, and are located at the corner of Broadway and Leonard street, New York, with branches in Boston, Chicago, St. Louis and San Francisco, from which places representatives are kept constantly busy looking after the outside interests of the concern. While Messrs. Birdsey & Somers manufacture a great variety of corsets, their leading brands are the celebrated "F. P." and "Armorside" corsets, which, by reason of their durability, ease and many qualities of superiority, are extremely popular, and find a ready market throughout the entire United States. The manufactory of Birdsey & Somers is one of Bridgeport's representative concerns, and is prominent in the active industrial life of the city. The individual members of the firm of Birdsey & Somers are Messrs. I. W. Birdsey and T. F. Somers, the former a leading citizen of Bridgeport, and the latter of New York city. Mr. Birdsey is the president of the Bridgeport Board of Trade, and is keenly interested and personally active in the progressive work of that energetic and public-spirited organization.

THE HURWOOD MANUFACTURING CO.,

BRIDGEPORT.

The Hurwood Manufacturing Company, Inc., is the outgrowth of The Acme Manufacturing Company, the latter a joint stock corporation organized under the statute laws of the State of Connecticut on the 29th day of December, 1900, with a capital paid in of \$1,000.

At a meeting of the company in December, 1901, the capital stock was increased to \$5,000, which was very soon found to be insufficient, owing to the rapid progress made



THE HURWOOD MANUFACTURING CO., BRIDGEPORT.

by this infant organization. The Hurwood Manufacturing Company was organized under the laws of Connecticut, March 28, 1903, with a capital stock of \$50,000, all of which is now paid in. They purchased the stock, machinery, patents, accounts, and, in fact, the entire plant as it stood from The Acme Manufacturing Company, paying therefor in cash. The new company immediately bought a site in

Bridgeport for their fine new factory, as shown herewith, and are doing a very prosperous and extensive business.

Wherever the goods have been sold, duplicate orders are pouring in upon them from the same sources, which would indicate the continued prosperity of the company. About July, 1901, they commenced operations in a very small shop in Plantsville, at which time they were making but one article, the now well known Hurwood screw driver. On the first of September of the same year they moved into a larger building and began to make other lines of screw drivers, notably those for cabinet makers' and electricians' use. The latter had the patent wings extending out from the steel near the top of the handle, but were counter-sunk and a non-conducting button was inserted whereby no danger resulted in their use. Next was added the Pony screw driver, which is made in all sizes of very small steel and is used extensively by typewriter manufacturers, sewing machine manufacturers and jewelers. Then came the extension screw driver which piano tuners find very useful for reaching screws in the bottom of the piano-case, and yet can be carried in a small hand satchel.

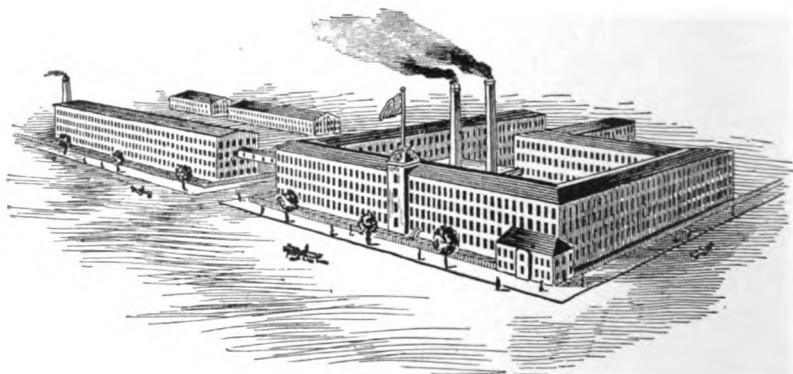
They now make a large variety of awls, in addition to the foregoing; scratch awls, carpet awls, belt awls, folding awls, thong awls, tinnerns awls, ice picks, tack-pullers, ball-bearing pliers, box joint pliers, nail sets, center punches, box hooks, hay hooks, wagon wrenches, all of which, or nearly all are protected by patents and are becoming very popular with the artisan and the mechanic. Perhaps the most popular tool which this company manufactures is the machinist's screw driver which is built for business and the like of which was never thought of by any manufacturer before. These are made in three sizes, designated as No. 5, 9 and 12. The No. 12 is made of half inch steel with a blade but four and one-half inches long and is very serviceable.

The latest addition to their line of manufactures is the "Bishop" Lantern, so called because Mr. A. T. Bishop, of Southington, patented an invention, in connection with the ordinary tin lantern, by which the globe is swung out from the burner.

WARNER BROS. CO.,
BRIDGEPORT.

The Warner Bros. Co. began business as Warner Brothers in the year 1872, and were incorporated in the year 1894 in the State of Connecticut, with the following officers, all of whom continue to serve: I. DeVer Warner, President; Lucien C. Warner, Vice President; DeVer H. Warner, Secretary and Treasurer. The first building on the present site was erected in 1874, to which other buildings have been added as the business grew until the total floor space has reached the aggregate of 200,000 square feet.

The first articles manufactured were health corsets, and their popularity grew with amazing rapidity. They were thick, heavy, but well fitted garments, stiffened with a trade



WARNER BROS. CO., BRIDGEPORT.

marked and patented fibrous cord called "Coraline." These have been displaced now by light, dainty, strong corsets made after the French system, and boned either with whale-bone or rust-proof steel. The two brands that are especially exploited are the "Redfern Corsets" and the "Warner's Rust-Proof Corsets," both of which enjoy an enormous sale. Supplementary to and subsidiary to the manufacture of corsets allied businesses have grown up under the same management and in the same buildings, as follows: "Premier," "Security" and "Sterling" hose supporters, Elite bustles, dress stays, collars and other women's notions, corset clasps and wire, brass buckles and trimmings, and all grades of paper boxes. The total number of hands employed is about 2,000.

JENNINGS BROTHERS MANUFACTURING CO.,
BRIDGEPORT.

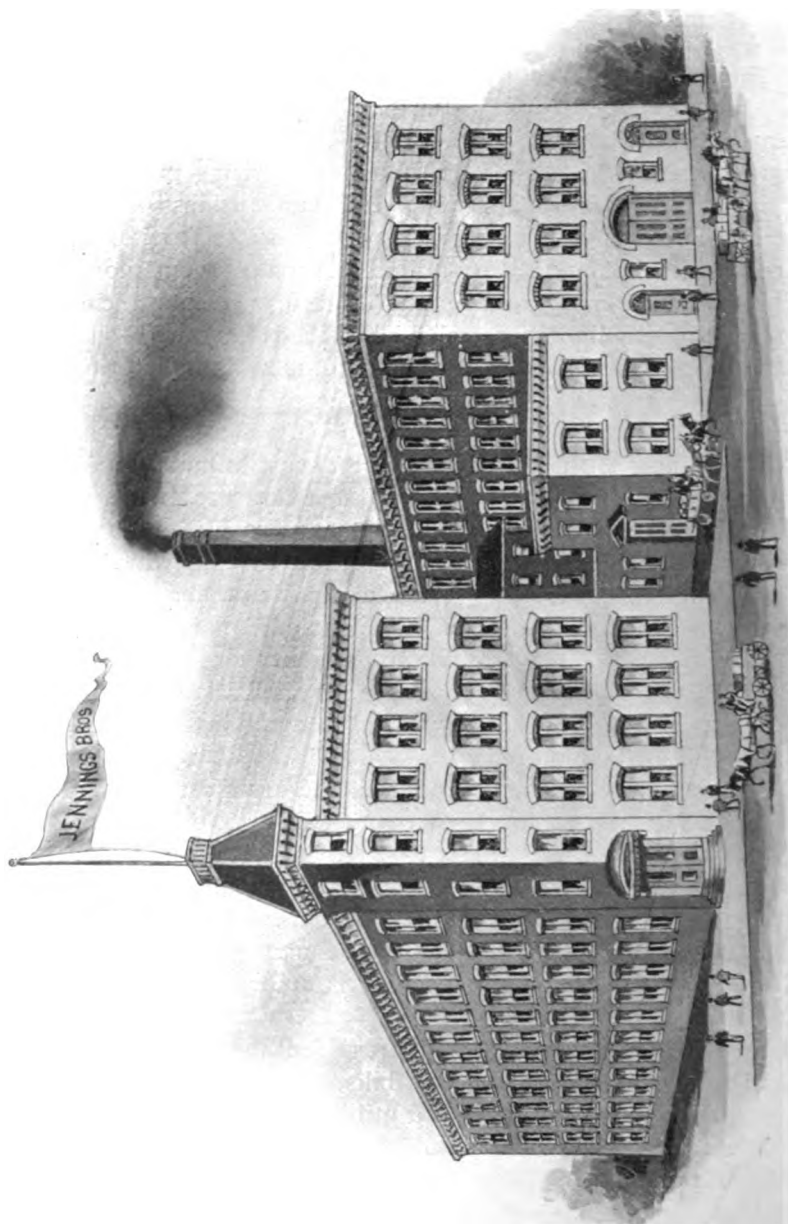
The accompanying illustration represents the factory buildings of The Jennings Brothers Manufacturing Company, located at Bridgeport, Conn., U. S. A. This company is one of the leading and most enterprising manufacturing concerns in Connecticut; it began business in the year 1890, occupying to begin with, less space for its entire business, than it now utilizes for office room alone. The hard work, aggressive and sagacious management, combined with liberality and fidelity in dealing with customers, has won for The Jennings Brothers Manufacturing Company a clientage and reputation equalled by few and excelled by none.

Its business is the manufacture of clocks, in metal cases, candelabra, art metal and silver plated flatware. Among the numerous finishes applied to its many designs and large variety of goods made, is its Ormolu gold plate which is manufactured exclusively by this company, and marketed under the trademark "J. B. Ormolu gold." This finish is the most beautiful and durable of any similar gold finish made, and is the result of years of investigation and experiments, and is now acknowledged to excel anything produced here or abroad.

Bronze finishes are also produced, and are most popular, as applied to art goods; their many dainty colorings perfect and bring out the artistic features and detail of the designs, to which it is most appropriately applied. These goods are in competition with imported goods of French manufacture, and are sold under the name of "Nouveau Bronze," or "Art Nouveau," which is at present so much in vogue.

French grey silver, and old brass finishes are also applied to novelties in candelabra, inks, trays, etc., and make most pleasing objects of art and utility.

Silver plated flatware is sold under the company's exclusive trade-mark, "1890 Jennings Bros.," and in each package is furnished a certificate of guarantee that the



JENNINGS BROS. MANUFACTURING CO., BRIDGEPORT.

goods are as represented, or purchase money refunded. Such a guarantee gives some idea of the integrity of the company's dealings with its customers.

On such products as are not sold under one of the regular trade-marks, when practicable the initials "J. B." appear on the article, for the purpose of identifying the company's product.

The floor space now occupied approximates 100,000 square feet which gives some idea of the rapid growth since the business was established in 1890.

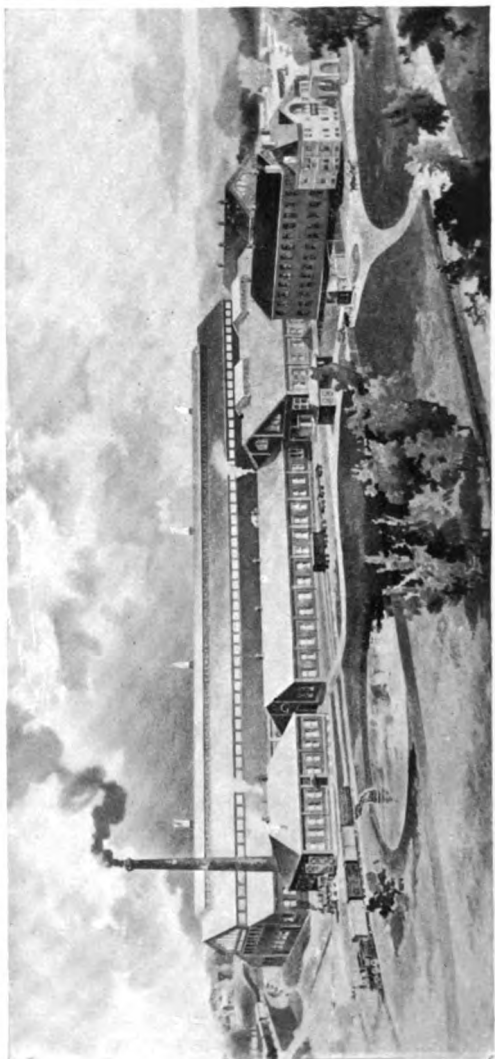
Goods of its manufacture are shipped to all states and territories of the United States, Australia, New Zealand, England, Africa, South America and Hawaii. The company is capitalized at \$100,000, and its officers and directors have continued the same since its organization, and to these men, who have given their undivided time, is due the success of The Jennings Brothers Manufacturing Company.

Its officers are Erwin M. Jennings, President; Edward A. Jennings, Treasurer, and Henry A. Jennings, Secretary, three brothers, reared on a Connecticut farm, entering business to make their own way, and who now enjoy the confidence of all who know them.

BRIDGEPORT.

Following is some statistical data concerning the town of Bridgeport, which is taken from the United States Census report for 1900, issued in 1902:

All industries	832
Total capital	\$33,066,890
Salaries	\$1,498,768
Average number of wage earners	19,301
Total wages	\$9,123,790
Total miscellaneous expenses	\$2,564,392
Total cost of materials used	\$19,133,236
Value of products	\$37,883,721
Annual earnings per employe	\$472.71



SESSIONS FOUNDRY CO., BRISTOL.

SESSIONS FOUNDRY CO.,

BRISTOL.

There is no more complete plant of the kind in the world than the establishment of the Sessions Foundry Company, which is here illustrated. The buildings were begun in August, 1894, and finished in December, 1895. It is a model in all respects.

After an extended experience in the wood turning and trunk hardware business, John H. Sessions (deceased) bought out the foundry business of the Bristol Foundry Company in 1879 and took his son, William, into partnership, the business being conducted under the name of the Sessions Foundry Company. From the start the business has been under the direct management of William E. Sessions, and has developed from a small plant, having but ten thousand dollars capital and a force of eighteen men to its present proportions, covering some twenty-eight acres in area, and is the largest plant of its kind east of Chicago.

NEW DEPARTURE MFG. CO.,

BRISTOL.

The New Departure Mfg. Co. has a floor space of about 60,000 square feet. The company is at present erecting a new three-story brick shop directly across the street from its present factory, which will add 28,000 square feet to its present capacity.

The company was started in 1888, and at that time only employed seven or eight hands; their manufacture being a



NEW DEPARTURE MFG. CO., BRISTOL.

push button door bell. It has since then added to other lines, rotary, tea, office, car and fire and bicycle bells, cyclometers, coaster brakes, and a general line of bicycle sundries; also brass goods, which comprise a general assortment of compression bibbs, racking, liquor, bottling cocks, etc.

The company has in its employ about 500 hands and will increase this very largely during the year 1904 when the new factory will be ready for occupancy.

E. O. PENFIELD,

BRISTOL.

The "saw shop" is a landmark in the history of Bristol. The present owner, Mr. E. O. Penfield, bought out the interest of the Bristol Saw Co., in 1879, and has since that time given the business his undivided time and attention, superintending personally every detail of manufacture. Mr. Penfield, reared in the saw business, and learning the trade in the shop he now owns, believing at the outset on assuming proprietorship, that quality and superiority of workmanship would pay in the long run, has steadfastly adhered to those early formed principles, and events have proved their correctness.



THE E. O. PENFIELD SAW SHOP.

To-day the "Penfield saw" is favorably known wherever used, though no special effort has been made to introduce them beyond the limits of New England.

A few other lines of goods are manufactured, the sale of them extending to England and Germany.

The manufacture of saws for the use of metal workers is a very important item, and Mr. Penfield furnishes nearly all the large concerns in New England, and the names of consumers in the middle and western states are found in his books. The business has largely increased, in fact, more than doubled in the past few years.

THE E. INGRAHAM COMPANY.

BRISTOL.

The E. Ingraham Company was founded by Elias Ingraham, who from 1827 to 1835, made clock cases under contract for various parties, and in the latter year bought a shop with water privilege where one of the present factories now stands, and commenced making cases on his own account. He continued making cases until 1843, in which year he formed a partnership with Elisha C. Brewster, un-

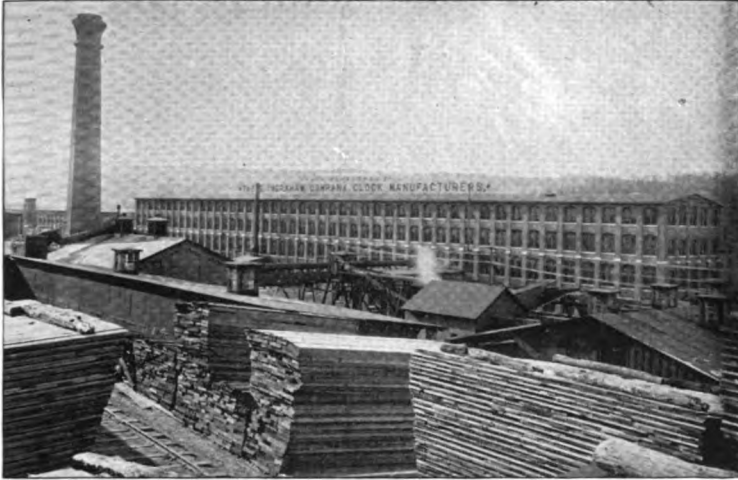


THE INGRAHAM CO., BRISTOL, CASE DEPARTMENT.

der the firm name of Brewster & Ingraham. This firm was succeeded in 1848 by E. & A. Ingraham, who continued business until 1855, in which year the plant was entirely destroyed by fire.

Two years later Elias Ingraham rented the shop now occupied by the Turner Heater Company, and in 1859 formed a co-partnership with Edward Ingraham, his son, which was continued until 1881. In that year a joint stock company was formed, comprising Elias Ingraham, Edward Ingraham, and the three sons of Edward Ingraham—Walter A., William S., and Irving E.

Since the re-organization of the concern in 1881 the growth of the company and its business has been phenomenal. A practically new plant with many times the facili-



THE INGRAHAM CO., BRISTOL, CASE DEPARTMENT.



THE INGRAHAM CO., BRISTOL, MOVEMENT SHOP.

ties of the old has been created; a large brick factory nearly four hundred feet long and four stories high has been erected, with a large number of subordinate buildings, and the old buildings still in use have been doubled in capacity.

Its managers at the present time are, Walter A. Ingraham, President; Irving E. Ingraham, Vice President. and William S. Ingraham, Secretary and Treasurer.

From the beginning the product of this company has won a distinct reputation which has never been lost. The company at present manufactures a large variety of wood pendulum clocks, but a building has recently been erected which is used exclusively for the manufacture of nickel-cased clocks with lever movements. The new departure gives employment to quite a number of hands in addition to the large force formerly employed.

The entire plant is equipped with the most modern machinery obtainable, and the company is enabled thereby, with the assistance of a large corps of skilled workmen, to manufacture goods so economically, that it can and does compete with the manufacturers of the world, and Ingraham clocks are to be found in every quarter of the globe.

N. L. BIRGE & SONS,
BRISTOL.

One of the old established industries of Bristol is the knitting works of Messrs. N. L. Birge & Sons, manufacturers of men's and children's fine knit underwear. This concern has long been an adjunct to the prosperity of the town, having been founded in 1850, when it was known as the "Bristol Knitting Company." After various changes, Mr. N. L. Birge became the sole proprietor and carried on the business until 1882, when he admitted his son, Mr. John Birge, into co-partnership, under the style of N. L. Birge & Son. In 1893 his second son, Mr. George W. Birge, was also admitted into the firm. The firm's new mill



N. L. BIRGE & SONS, BRISTOL.

is a model of efficiency throughout and the equipment of machinery and appliances is of the latest improved description, including fourteen hundred spindles, five sets of cards, five mules, twenty-five sewing machines and twenty-four of the improved circular rib knitting machines, also winders, loopers, etc. A seventy-five horse power engine drives the machinery, which has a capacity of producing one hundred dozen of underwear daily, the mill affording steady employment to one hundred hands. The firm's goods are much preferred by the trade, being of such superior quality and splendidly finished. The firm's goods are sold generally throughout the United States and stand to-day among the best in the market.

THE BRISTOL MANUFACTURING CO.

BRISTOL.

The Bristol Manufacturing Co., one of the oldest establishments in Bristol, occupies both sides of Riverside avenue a little east of Main street. It was organized in 1837, with a capital stock of forty-five thousand dollars, for the manufacture of satinets.

Chauncey Ives and Bryan Hooker were respectively its first president and secretary. In 1856 the Company was re-organized, its capital stock was increased to seventy-five thousand dollars, and John English was chosen president and Harmanus M. Welch, secretary.



BRISTOL MANUFACTURING COMPANY, BRISTOL.

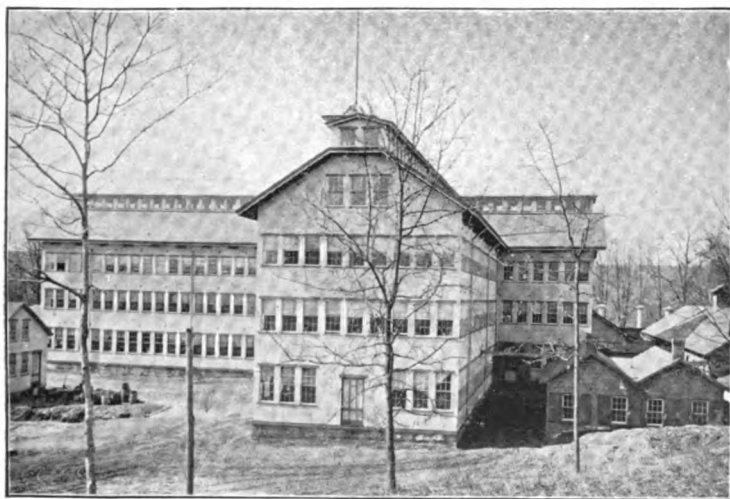
The attention of the company was directed to the manufacture of knit underwear, in which it has ever since been successfully engaged. The growth of the company in its new business has been steady and its career has been prosperous, its product having been very popular in the market by reason of its superior quality and finish.

The buildings consist of a three story brick and frame main building, sixty by three hundred and fifty feet; a brick and frame finishing mill fifty by one hundred feet; one brick and two frame warehouses; and a handsome brick office. The machinery includes eight sets of cards, eight mules, thirty-two knitting machines, thirty sewing machines, and two thousand sixteen spindles. The company employs about one hundred and fifty hands.

BRISTOL BRASS & CLOCK COMPANY,

BRISTOL.

The Bristol Brass & Clock Co. was organized April 3, 1850, for the manufacture of sheet metals, with a capital stock of one hundred thousand dollars. The original subscribers were Israel Holmes, Green Kendrick, Philo Brown, John P. Elton, Elisha N. Welch, Lyman W. Coe, J. C. Brown, Theodore Terry, John Birge, Elisha Manross, Chauncey Boardman, Samuel B. Smith, Ebenezer N. Hendrick, Edward L. Dunbar, Elisha C. Brewster and Elias Ingraham.



BRISTOL BRASS & CLOCK CO., BRISTOL, BURNER SHOP.

Israel Holmes was chosen president, and Lyman W. Coe, secretary and treasurer. During the first year of the company there were large transfers of stock, and on July 23, 1851, Elisha N. Welch succeeded Israel Holmes as president, Mr. Holmes being appointed secretary and treasurer, which offices he surrendered December 27, 1851, to Andrew F. Atkins. As thus organized, the officers of the company continued until the death of Mr. Welch in 1887, when Mr. Atkins was appointed his successor, holding that position together with that of treasurer up to the time of his



BRISTOL BRASS & CLOCK CO., BRISTOL, SPOON SHOP.

death, which occurred on the 9th day of May, 1893. The present officers are, James H. Welch, president; J. R. Holley, secretary and treasurer; George S. Brown, assistant treasurer.

In 1857 the company purchased its silver department, now doing business as the American Silver Company, succeeding The Holmes & Tuttle Mfg. Co., and in 1868 its lamp department, succeeding George W. Brown & Co. In the former department the manufacture of flat ware was continued, but on a limited scale, until in 1885 Elisha Hollister



BRISTOL BRASS & CLOCK CO., BRISTOL, SPOON SHOP.

entered upon the undertaking of building up this branch of the business, which, as a result of his energy and perseverance, assumed its present proportions.

The lamp department was continued under the management of George W. Brown until his death, when he was succeeded by his son, George S. Brown.



BRISTOL BRASS & CLOCK CO., BRISTOL, ROLLING MILL

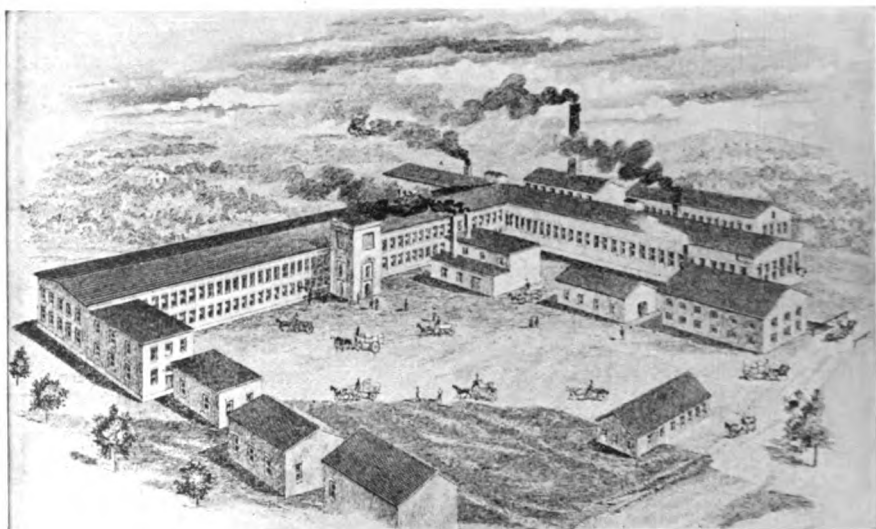
BRISTOL.

Following is some statistical data concerning the town of Bristol, which is taken from the United States Census report for 1900, issued in 1902:

All industries	143
Total capital	\$3,764,528
Salaries	\$199,424
Average number of wage earners	2,476
Total wages	\$1,188,943
Total miscellaneous expenses	\$207,650
Total cost of materials used	\$2,224,314
Value of products	\$4,364,097
Annual earnings per employe	\$480 19

BEVIN BROS. MFG. CO.,
CHATHAM (EAST HAMPTON).

Here is shown an illustration of the manufacturing plant conducted by the Bevin Brothers, East Hampton in the town of Chatham. This plant was established in 1832 and

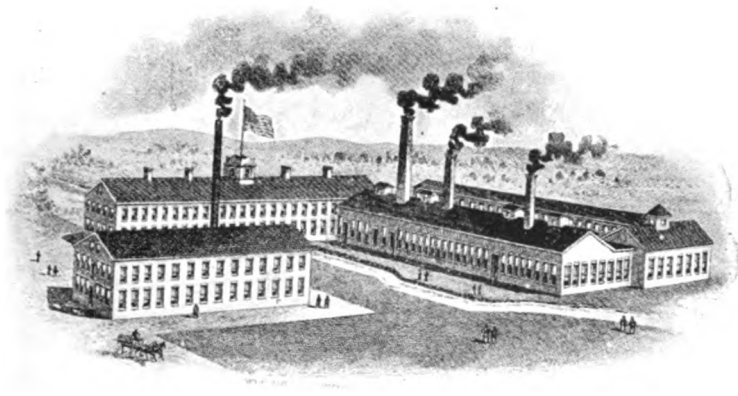


BEVIN BROS. MFG. CO., EAST HAMPTON.

has grown to be one of the largest and best known of the numerous manufacturers of sleigh bells in the village of East Hampton.

THE STARR BROTHERS BELL COMPANY,
CHATHAM (EAST HAMPTON).

The Starr Brothers Bell Company, of East Hampton, in the town of Chatham, was organized in 1882, succeeding to the business formerly conducted by Vazey & White. The company's product consists of a large variety of sleigh and other bells and is a very prosperous concern. The officers of the corporation are: President, H. S. Chase, Waterbury, Conn.; Treasurer, J. M. Starr, East Hampton; Secretary, V. B. Starr, East Hampton.

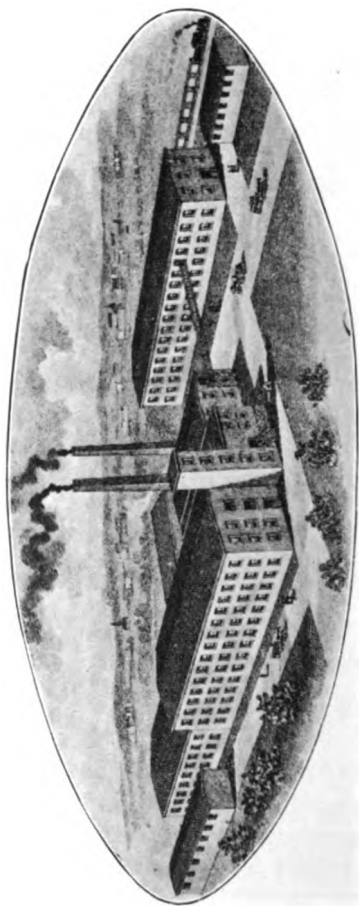


STARR BROS. BELL CO., EAST HAMPTON.

A portion of this plant is occupied by the Starr Net and Twine Company, which was organized in 1896, and manufacture large quantities of linen fish nets.

The officers consist of the same individuals as are those of the Bell Company with the exception of the Secretary, which position is filled by Ambrose M. Starr. The Company imports large quantities of linen twine which is used in its manufactures.

The working floor space used by both establishments aggregates about 40,000 square feet.



SUMMIT THREAD CO., EAST HAMPTON.

THE SUMMIT THREAD COMPANY,

CHATHAM (EAST HAMPTON).

The Summit Thread Company, whose mill is here illustrated, is one of the leading industries of East Hampton, in the town of Chatham. This mill was, subsequent to July, 1893, a branch of The Eureka Silk Company, but on that date the business was incorporated under the laws of the State of Maine, as a separate concern.

For a number of years thereafter part of one of the floors was devoted to "throwing" for the Eureka Silk Company, but about three years ago all the silk machinery was shipped to the Eureka Silk Manufacturing Company's mill at Canton, Mass., and the whole mill is now devoted to the exclusive manufacture of cotton thread.

This mill covers something over an acre of ground and has a working floor space of about 53,846 square feet. It gives employment to a large number of the inhabitants of the town, and all sizes, qualities and colors of cotton thread are manufactured. Most of the production goes to large manufacturers of clothing, white goods, etc., and doubtless much of the clothing worn by citizens of the state is sewed with thread made at this mill.

The yarn used by The Summit Thread Company is manufactured at one of the leading spinning mills of New England, and is of the best that can be procured. Their employes are all skilled in their various departments, and the thread produced has the reputation of being of a very high quality.

It has offices at Boston, New York, Baltimore, Cleveland and Cincinnati. The Boston, Baltimore and Cincinnati branches each carry a large stock of thread, and shipments to the trade are made direct from them.

The officers of this industry are D. King, President, Quincy, Mass.; H. A. Bates, Vice President, Middletown, Conn.; T. King, Treasurer, Quincy, Mass.; E. Gordon Cone, Assistant Treasurer, East Hampton, Conn. E. Gordon Cone is agent and H. A. Bates manager of the sales department.



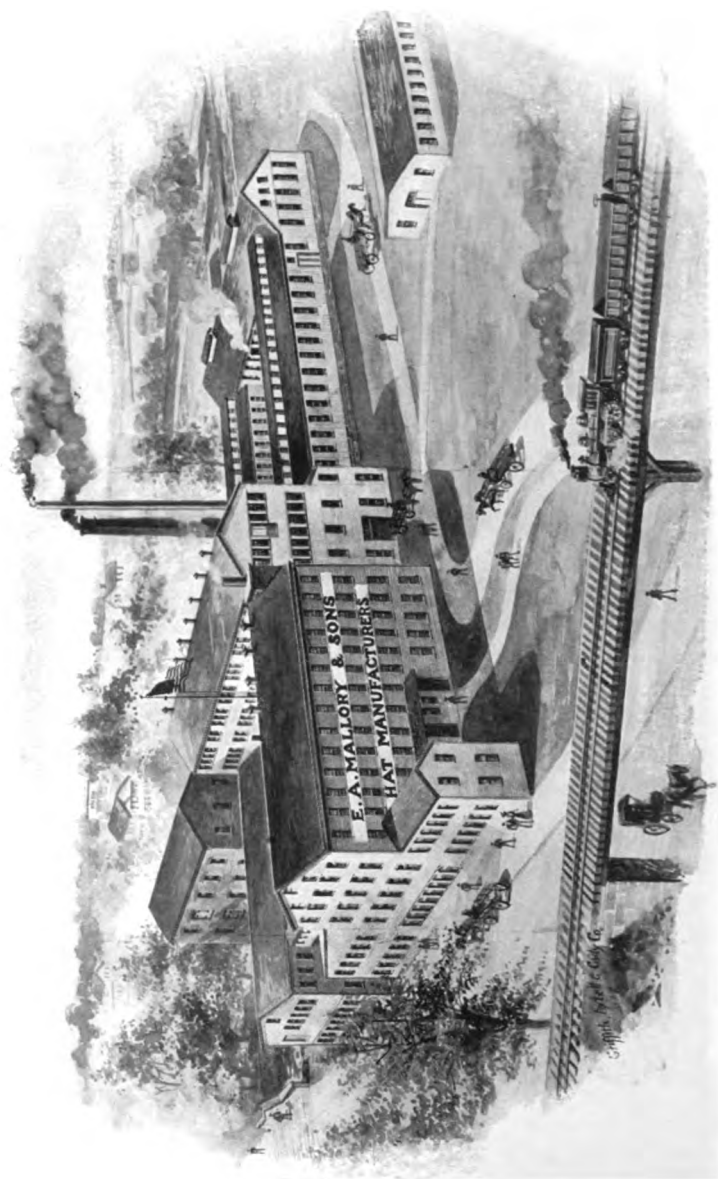
HAWES, VON GAL CO., DANBURY.

HAWES, VON GAL COMPANY,

DANBURY.

The plant of the Hawes, Von Gal Company, an illustration of which is here presented, is a model of its kind in equipment and system. The structure covers a large area with over 25,000 square feet of floor space, and has its own lighting and heating plant. It also has a complete equipment of automatic sprinklers, affording the best fire protection. By adopting a system peculiar to itself in the matter of disposing of its product the company has assumed a unique position in the hatting industry and has been eminently successful.

.



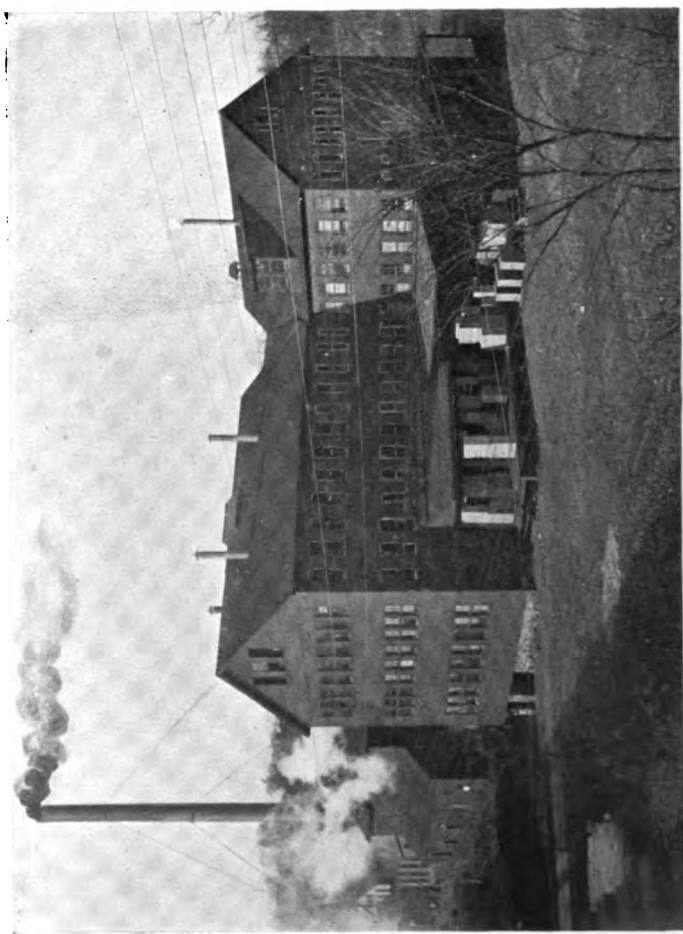
E. A. MALLORY & SONS, DANBURY.

E. A. MALLORY & SONS,

DANBURY.

The hat manufactory of E. A. Mallory & Sons has a well established reputation. The enterprise from which this business has grown was first established in 1813, by Ezra Mallory at Great Plain, near Danbury, who started a hat shop on a small scale in that location, employing from six to twelve hands, and turning out from three to six dozen hats per week.

The magnitude of the Mallory business to-day presents a wonderful contrast to that of nearly a century ago. The immense plant, with main buildings four stories in height, an illustration of which is here produced, is known as one of the largest and best equipped hat factories in the country, and turns out annually nearly 50,000 dozen hats of all kinds.

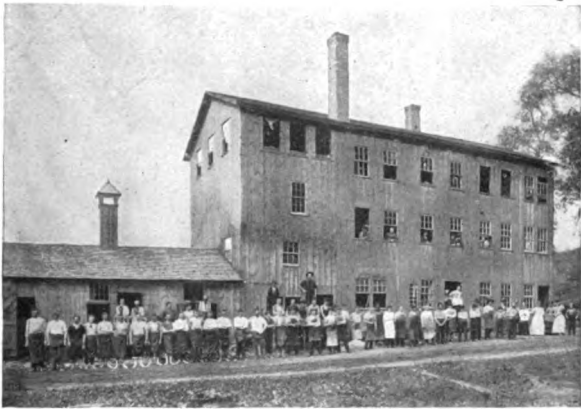


D. E. LOEWE & CO., DANBURY, NEW FACTORY.

D. E. LOEWE & COMPANY.

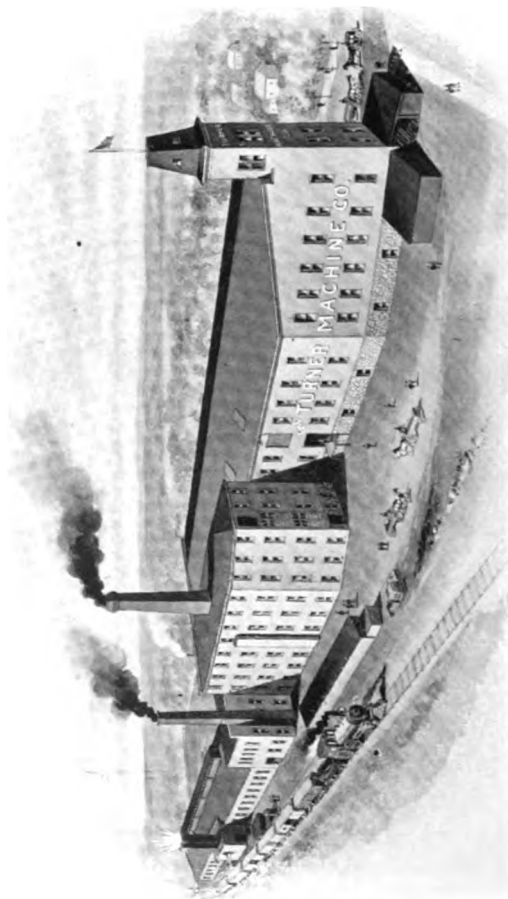
DANBURY.

The establishment of D. E. Loewe & Company was first established in 1879, by the person for whom the company was named. Originally the firm was a copartnership which continued for a short time, when others were admitted into



D. E. LOEWE & CO., DANBURY, OLD FACTORY.

the concern. In 1894 a dissolution of partnership took place, and in 1901 the present management assumed the business and have since controlled it. The first home of the concern was a small shop, situated near Beaver Brook. That changes have been made in the appearance of the plant since then may be seen by comparing the illustrations.



TURNER MACHINE CO., DANBURY.

TURNER MACHINE COMPANY.

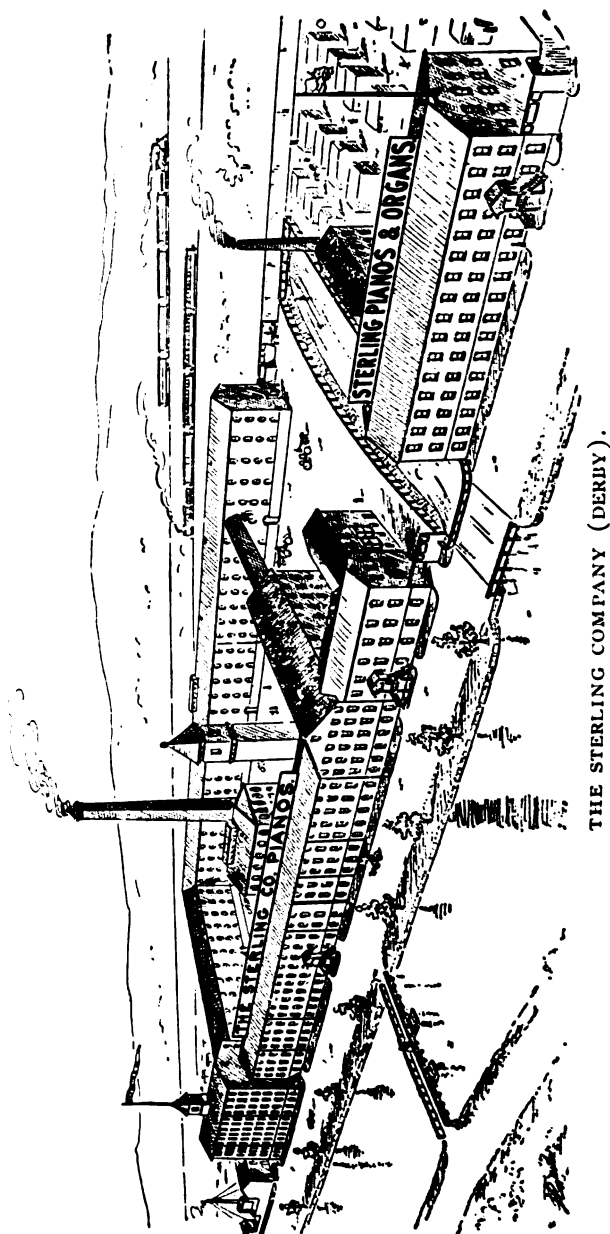
DANBURY.

The accompanying illustration shows the plant of the Turner Machine Company, which is an extensive establishment, and is a substantially built structure covering a large area, equipped throughout with the most modern labor-saving devices. It has been said that this company can build and equip a plant completely and turn it over ready for making hats.

 DANBURY.

Following is some statistical data concerning the town of Danbury, which is taken from the United States Census report for 1900, issued in 1902:

All industries	283
Total capital	\$3,636,619
Salaries	\$146,665
Average number of wage earners	4,296
Total wages	\$2,017,155
Total miscellaneous expenses	\$406,556
Total cost of materials used	\$3,542,000
Value of products	\$7,213,555
Annual earnings per employe	\$469.54



THE STERLING COMPANY.

DERBY.

The Sterling Company was organized in 1866 to manufacture reed organs. A few years later it took up the manufacture of pianos. It discontinued the organ business two years since and is now engaged solely in the manufacture of pianos and automatic piano players.

The combined floor space of its plants aggregate more than 300,000 square feet.

 DERBY.

Following is some statistical data concerning the town of Derby, which is taken from the United States Census report for 1900, issued in 1902:

All industries	84
Total capital	\$4,328,442
Salaries	\$112,427
Average number of wage earners	2,311
Total wages	\$1,116,078
Total miscellaneous expenses	\$302,878
Total cost of materials used	\$1,304,256
Value of products	\$3,456,561
Annual earnings per employe	\$482.94



C. E. BROWNELL, MOODUS. MILL NO. 1.



C. E. BROWNELL, MOODUS, MILL NO. 2.

C. E. BROWNELL,
EAST HADDAM (MOODUS).

MILL NO. 1.

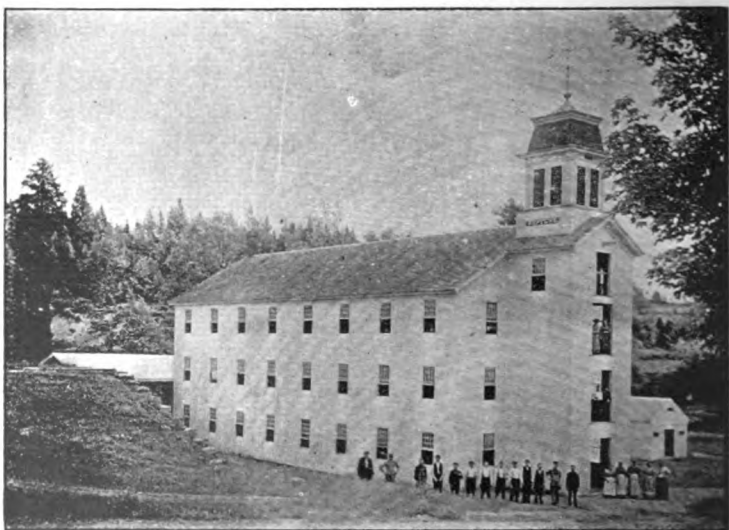
This mill was originally built in 1825 by James H. & Edward P. Brownell for cloth dressing and afterwards used for wool carding until 1844 when E. P. Brownell bought the interest of James H. and began the manufacture of cotton-seine twine. In 1875 the present proprietor came in possession and has operated it to the present time. The capacity has been increased from time to time and now the production is nearly seven times the original product.

MILL NO. 2.

This mill occupies the site of the old Oakville Mfg. Co., which took the place of Thomas Crippens' Grist Mill, built about 1700. The Oakville mill manufactured cotton sheetings and was burned in 1842. Soon after the present mill was built for the manufacture of cotton duck and continued that manufacture until after the civil war. It was then changed to cotton twines and yarn and is still used for that purpose.



NEPTUNE TWINE AND CORD MILL, NO. 1, MOODUS.



NEPTUNE TWINE AND CORD MILL, NO. 2, MOODUS.

THE NEPTUNE TWINE AND CORD MILLS, INC.

EAST HADDAM (MOODUS).

The Neptune Twine and Cord Mills, Inc., property consists of two mills, the upper one of which was constructed by Emory Johnson. In 1862 he constructed this mill, and began the manufacture of twines, and though the civil war was then in progress this mill did a successful business, and was the only one in town in operation during the entire period. The lower mill, in which Mr. Johnson had formerly



NEPTUNE TWINE AND CORD MILL, NO. 3, MOODUS.

an interest, again came into his possession in 1867. This mill, which was erected by Mr. Johnson's father-in-law (Stanton S. Card), is now known as the Neptune. The name of "Neptune," as applied to these mills, was adopted in 1864. The upper mill is 34x80 feet on the ground floor, and has two stories. On the first floor is done the carding. Its motive power is a 36-inch turbine water wheel of seventy-five horse power. The lower mill is 36x80 feet, and has four floors; on the first floor, carding, etc.; second floor, the spinning; third floor, the twisting, winding up, and on

the fourth floor, the packing, baling, etc. The motive power is water, and has a force of one hundred horse power. The mills employ forty hands and consume 19,000 pounds per week. They manufacture soft and hard twines, cable cords, etc., etc.

The firm was incorporated in 1902, and the present officers are as follows: E. Emory Johnson, president and treasurer; Matthew W. Plumstead, vice president; Elsie S. Johnson, secretary and assistant treasurer.

EAST HADDAM (Moodus.)

Following is some statistical data concerning the town of East Haddam, which is taken from the United States Census report for 1900, issued in 1902:

All industries	27
Total capital	\$390,850
Salaries	\$3,400
Average number of wage earners	337
Total wages	\$104,754
Total miscellaneous expenses	\$73,616
Total cost of materials used	\$209,940
Value of products	\$482,649
Annual earnings per employe	\$310.84

THE ASPINOOK COMPANY.

GRISWOLD (JEWETT CITY).

This company was organized May 27th, 1903, by the election of Moses Pierce, William A. Slater, John M. Johnson, Oliver L. Johnson, Jr., Edward Harland and Charles P. Cogswell of Norwich, and L. H. Cunliff of New York, as directors; by whom Moses Pierce was elected president; Edward Harland, vice president, and Oliver L. Johnson, Jr., secretary and treasurer.

The present officers are Edward Harland, president; L. H. Cunliff, vice president, and Oliver L. Johnson, Jr., secretary and treasurer.

The works and office are within the original limits of the town of Norwich, in the borough of Jewett City, in the present town of Griswold.

The original capital was \$350,000.00, which has been increased to \$500,000.00.

The buildings are:

Main mill—61x340, three stories.

Print building—63x291, three stories.

Color shop—27x103, one story.

Annex—45x410, one story (used for wash and can room).

Single room—80x83, one story.

Bleach house—83x146, one story.

Dye house—83x146, one story.

Black dye house—102x162, one story.

Dye house annex—41x90, one story.

Beetle room—63x105, one story.

Repair shop and office, 52x147, two stories.

Blacksmith shop—24x34, one story.

Grey cloth building—80x83, three stories.

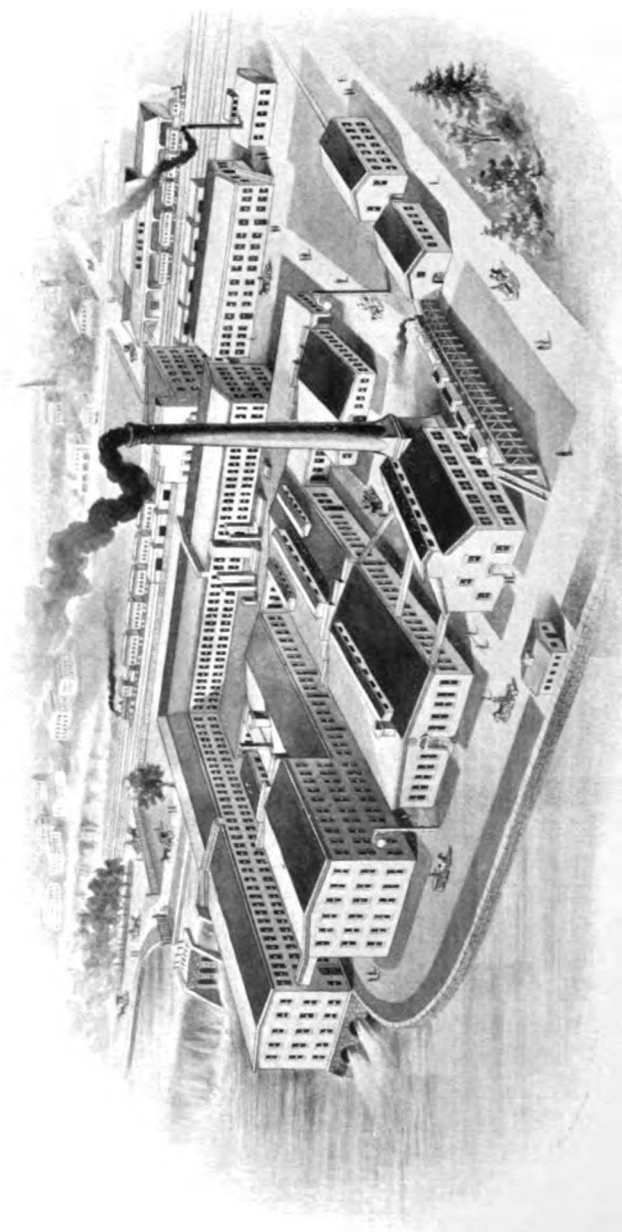
Storehouse, No. 1—60x100, five stories.

Storehouse, No. 2—64x140, five stories.

All built of brick.

Total floor space—306,979 square feet.

There are eleven boilers, with a capacity of 1,175 horsepower, in a brick boiler-house 47x122, one story, with brick chimney 156 feet high; flue 9 inches in diameter.



THE ASPINOOK CO., JEWETT CITY.

There are seven printing machines now in operation.

The works are run by water, with three pairs of horizontal wheels, with total capacity of 1,260 horse-power.

Electricity is generated by water-power within the main building, by which the printing machines are operated, and the buildings and property lighted.

Water power is created by a timber dam built across the Quinebaug river, having a rollway of 481 feet (also 100 feet rollway in canal), built on and anchored to solid ledge throughout, giving a fall of about 23 feet. The water enters canal through five head-gates, each ten feet square. There are five waste-gates of the same size from the canal.

A variety of fabrics are bleached, printed, and dyed fast black and colors, and finished for converters and others. Capacity about 4,000 pieces per day.

There are about five hundred employees.

Water for bleaching is brought by gravity from the canal in a 30-inch steel pipe, lined with cement.

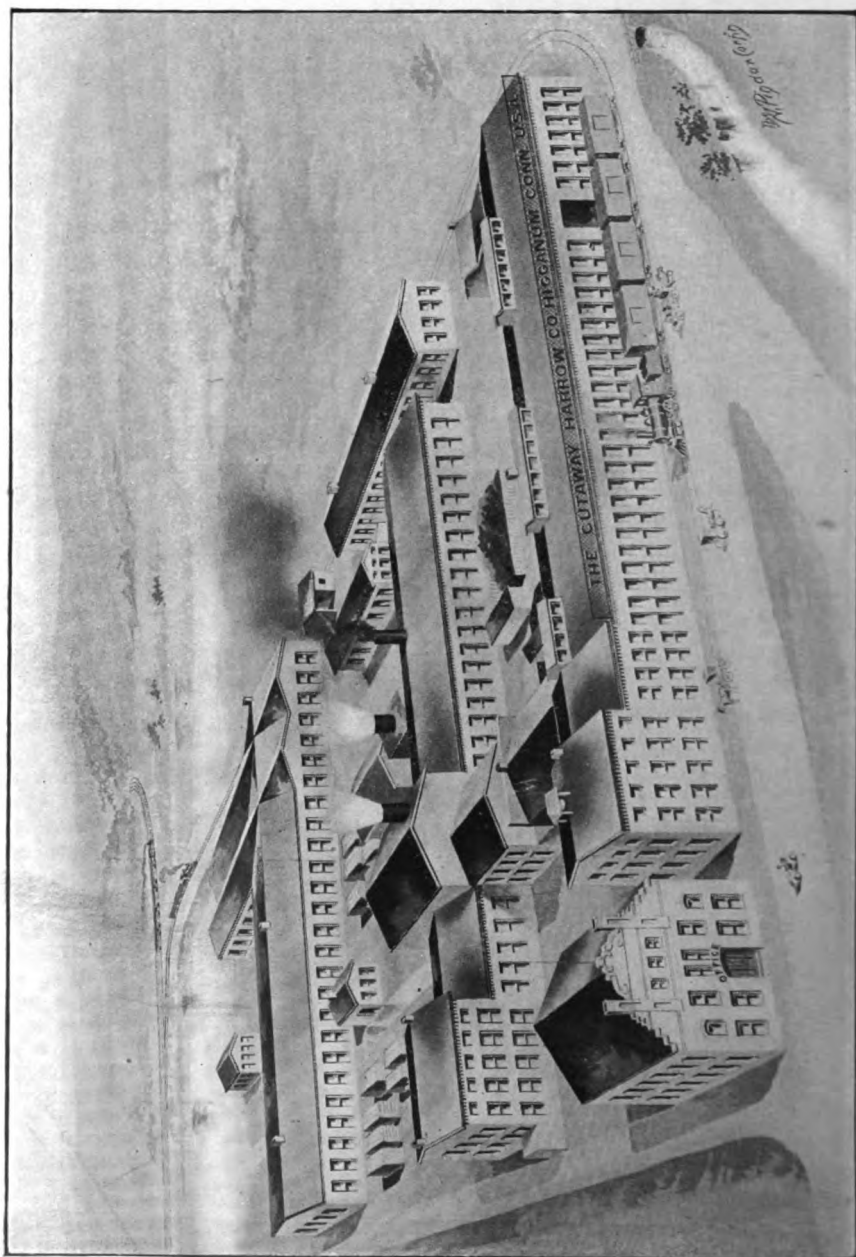
Fire protection is furnished by automatic sprinklers, and outside hydrants, furnished by water from the public supply, through 8-inch pipes; giving a pressure, when hydrants are not in use, of 135 pounds per square inch, and 65 pounds when all the hydrants are open.

Further protection is given by both rotary and steam pumps.

GRISWOLD (Jewett City.)

Following is some statistical data concerning the town of Griswold, which is taken from the United States Census report for 1900, issued in 1902:

All industries	30
Total capital	\$2,175,383
Salaries	\$33,064
Average number of wage earners	813
Total wages	\$329,266
Total miscellaneous expenses	\$123,772
Total cost of materials used	\$505,748
Value of products	\$1,173,969
Annual earnings per employe	\$405.00



THE CUTAWAY HARROW CO.

HADDAM (HIGGANUM).

Works shown in connection with this write-up were mostly erected before this company was organized which have at different times controlled the plant. The first was the Higganum Manufacturing Company, second, the Higganum Manufacturing Corporation, and third in 1892, the Cutaway Harrow Co. George M. Clark has been president of all three companies and Thomas J. Clark has been vice president of all three.

The present floor space of the plant is nearly or quite seven acres; their motive power is water. The plant is located about one-fourth mile from the main tracks of the Valley railroad, by which it is connected. They are now the largest manufacturers of disk harrows and disk plows in the world. They are the only manufacturers of Clark's Cutaway machines, Cutaway harrows, Cutaway disk plows, right laps and Cutaway disk gang plows and double action Cutaway disk harrows, in fact, they are very large manufacturers of Cutaway machines of every description. They manufacture a very large line of agricultural tools and other machinery, reversible sulky disk plows, common plows, side hill plows, root cutters, Sampson tobacco presses and jacks, Dutton mower knife and machine tool grinders, also other grinders, Acme cutting nippers, cider mills, and other machinery, of which they ship hundreds of car loads annually in this country and also to all other civilized countries on the globe.

D. & H. SCOVIL.**HADDAM (HIGGANUM).**

At Higganum, in the town of Haddam, is located the hoe industry founded by Daniel and Hezekiah Scovil in the year 1844 and which is still conducted under the time honored name of D. & H. Scovil.

The particular type of hoe, namely the eye hoe, manufactured by D. & H. Scovil, was first conceived and since de-



D. & H. SCOVIL, HIGGANUM, MILL NO. 4.

veloped and improved to meet the peculiar requirements of the southern cotton planter. This firm was the first to apply to the hoe, the name by which it is now universally known, "Planters' Hoe," and has all these years applied itself to the manufacture of "Planters' Hoes" exclusively, save during the civil war, which time was mainly employed in making ramrods for the U. S. government.

The industry is conducted in four groups of mill buildings, located on the banks of Candlewood Hill Brook, a tributary of the Higganum river, these different groups are designated in the accompanying illustrations as Mills No.



D. & H. SCOVIL, HIGGANUM, MILL NO. 1.



D. & H. SCOVIL, HIGGANUM, MILL NO. 2.



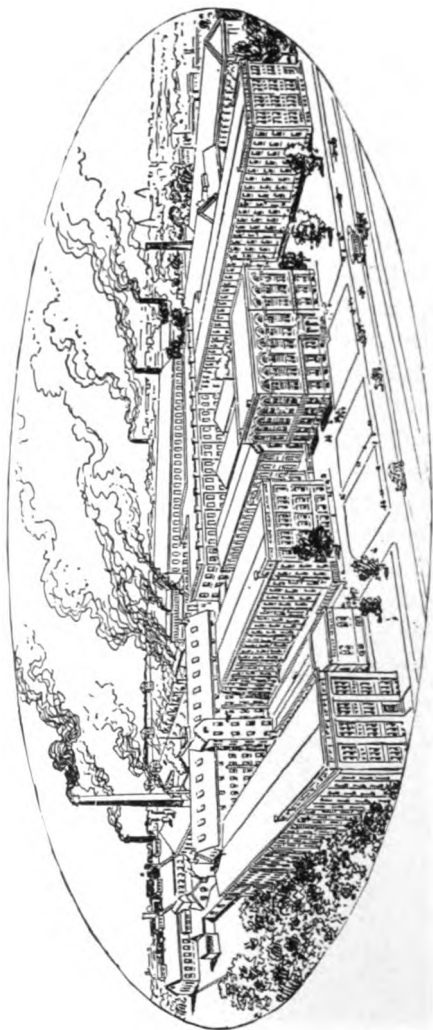
D. & H. SCOVIL, HIGGANUM, MILL NO. 3.

1, No. 2, No. 3, and No. 4, and the following data will, in a measure, serve to show how the industry has developed.

The first group on the stream is Mill No. 1, and the others are located in order on the stream, at varying distances apart until Mill No. 4 is reached. Mill No. 1 was built by the firm in 1849, and was quite extensively enlarged in 1855. No. 2 was started in 1859 and enlarged the year following. No. 3 was added to the plant in 1867 and the original part of No. 4 was acquired in 1880. The latter has been enlarged from time to time and in 1887 the present brick building with boiler and engine house was added.

The No. 4 mill, at the present day, has a floor area of about 19,000 square feet, the other three mills represent about 26,000 square feet, making a total of 45,000 square feet floor space used for manufacturing purposes in all the mills. Power is furnished by the waters of Candlewood Hill brook and Mills Nos. 2, 3 and 4, in addition to power from the brook, are equipped with steam power.

Quality has ever been the aim of the concern, and as a result that business well illustrates the value of a deservedly good reputation. The Scovil hoe is made especially for use in the cotton growing states and time has proved that it has no equal for the purposes intended.



POPE MANUFACTURING COMPANY, HARTFORD.

POPE MANUFACTURING COMPANY.

HARTFORD.

The manufacturing of Columbia bicycles was begun in 1883 under the direction of Colonel A. A. Pope, in the original factories of the Weed Sewing Machine Company at Hartford, Connecticut. These were a small group of buildings situated on the banks of the Park River and bordering on the street now known as Capitol avenue. With the growth of the business this plant was finally absorbed by the Pope Manufacturing Company, and extensive additions were made thereto from time to time as occasion required, until at the present time the group of buildings known as the Columbia bicycle factory constitutes the largest factory in the world devoted to the manufacture of bicycles, automobiles and accessories.

In 1901 the manufacturing of motor bicycles was begun, and in 1903 the making of automobiles. In the fall of 1903 extensive additions were made to the plant to care for the constantly increasing business until now the total floor space devoted to manufacturing purposes is 335,970 square feet and for office purposes, 29,600 square feet, making the total floor space devoted to the business of the Pope Manufacturing Company in Hartford equal to 365,670 square feet. The factories cover five and one-half acres of property, located on Capitol avenue and within a few blocks of the state capitol, and are one of the show places of the city.

At the present time Columbia, Hartford and Vedette bicycles, Pope coaster brakes, Pope motor bicycles, Pope-Hartford automobiles are the principal articles manufactured.

The buildings are of modern design and are built throughout of the best mill construction. The power plant and machinery are modern and up-to-date. The company has its own electric light and water system and complete fire de-

partment, and a private telephone system connecting all parts of the office and factory. It also operates a complete printing department in which printing is done for the various factories, offices and branch houses throughout the country.

Every provision has been made for the comfort of employes, such as comfortable dressing and locker rooms, toilet rooms, shower baths, etc. The company operates a cafe for the benefit of their employes at which meals are supplied at cost.

The present officers of the company are Colonel A. A. Pope, president; Mr. Albert L. Pope, vice president; Colonel George Pope, treasurer, and Mr. Paul Walton, secretary.

Hartford is also the headquarters of the entire eastern department of the Pope Manufacturing Company, of which Mr. Charles E. Walker is general manager. The foreign business of the company is also handled from here as well as the business of the factories at Westfield, Massachusetts, and Hagerstown, Maryland.

THE BILLINGS & SPENCER CO.,

HARTFORD.

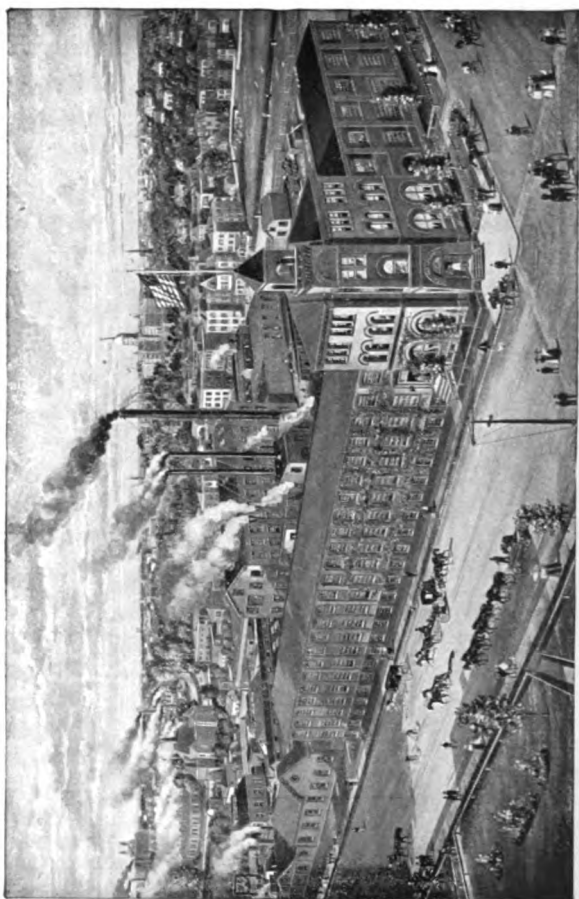
This company was organized in 1869 and its history reveals the development of a new and valuable industry, drop forging.

Prior to the organization of this company there was no regularly equipped plant for the production of drop forgings. In short, the art was undeveloped and for a long period its latent possibilities waited for the right man to develop them.

Charles E. Billings, president and general manager of this company, by numerous improvements and inventions, has succeeded in building up an important industry in drop forgings.

To fully realize the importance of the art, as developed and applied at the present time, we take, for example, the parts of fire arms. These parts were formerly made on the "cut and try" plan and could only be made to fit by filing a little here and there and then by trying them, with several trials, before the parts would go together satisfactorily. The uniformity of forgings makes it an easy matter to machine the several parts of modern firearms so that they will be exact duplicates of each other, thereby reducing their cost and increasing, in a given time, their production. The sewing machine shuttle was formerly made out of solid pieces of steel, whereas they are now drop forged, so near the required form that comparatively little machining is necessary. The quality of material and the uniformity of product, as produced by drop forging greatly enhance the value of manufactures in which they are used. By drop forging, bars of iron, steel, copper or bronze, can be transformed into pieces of required shape and size with rapidity and precision.

The dies for forging are made from blocks of steel rang-



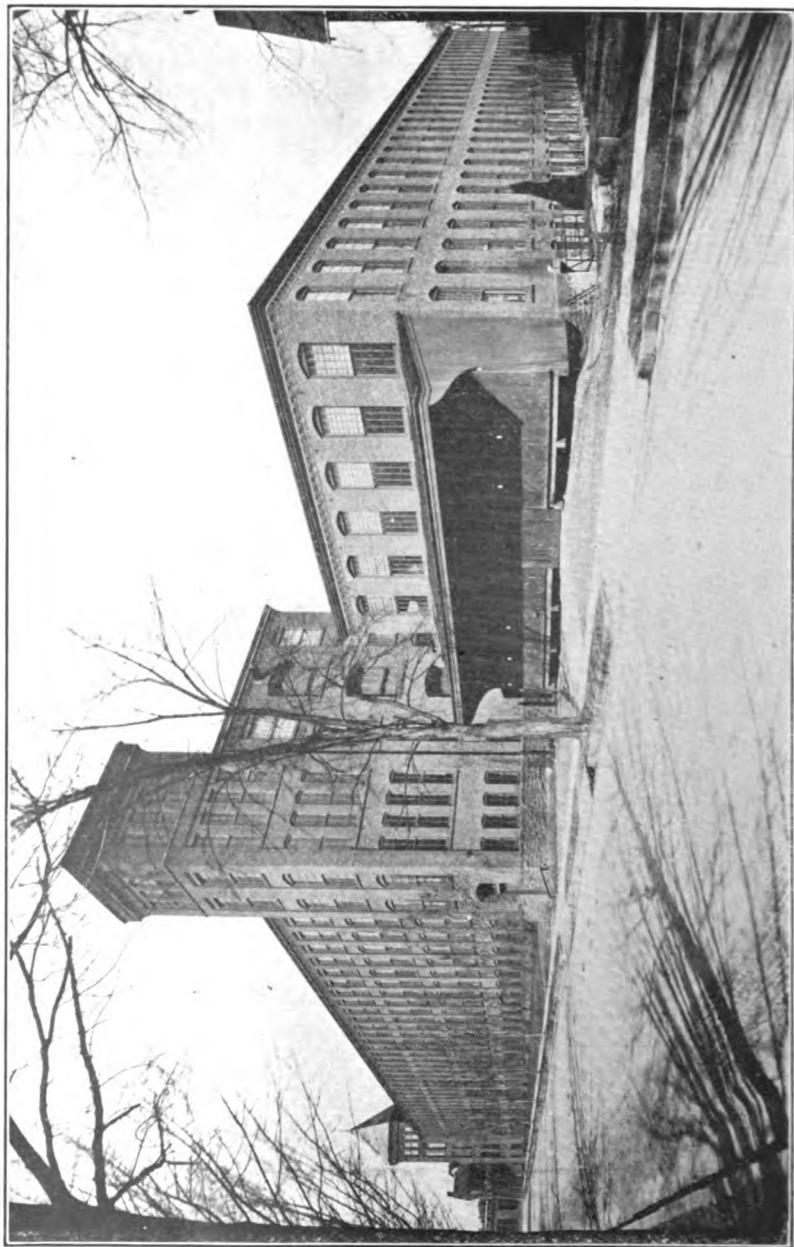
THE BILLINGS & SPENCER CO., HARTFORD.

ing from 3 1-2 to 14 inches square. In these are cut the form of the article to be forged, generally one-half of the thickness in the lower and the other half in the upper die; each is hardened to the proper temper, one is keyed fast to the base or anvil and its counterpart to the hammer of the drop.

The use of drop forgings at the present time is quite general, especially are they used where reliability and security are to be attained as steering connections, axle ends, axles, steering knuckles, etc., in the automobile, as shuttles in the sewing machine, as gun or pistol parts, as bicycle cranks, sprockets, etc., as parts of street and steam railway equipment, machinery, tools, etc.

An important addition to this company's product is the B. & S. patent improved drop hammer, the outgrowth of some thirty years' experience in the drop forging business. The U. S. government has some seventy-five of the B. & S. patent improved drop hammers in service at the several armories.

At the present time the company occupies 88,000 square feet of floor space and employs some 300 hands. Its products consist of drop forgings of every description, in iron, steel, copper and bronze, drop hammers, trimming presses, heating furnaces and machinists' tools of a high standard.



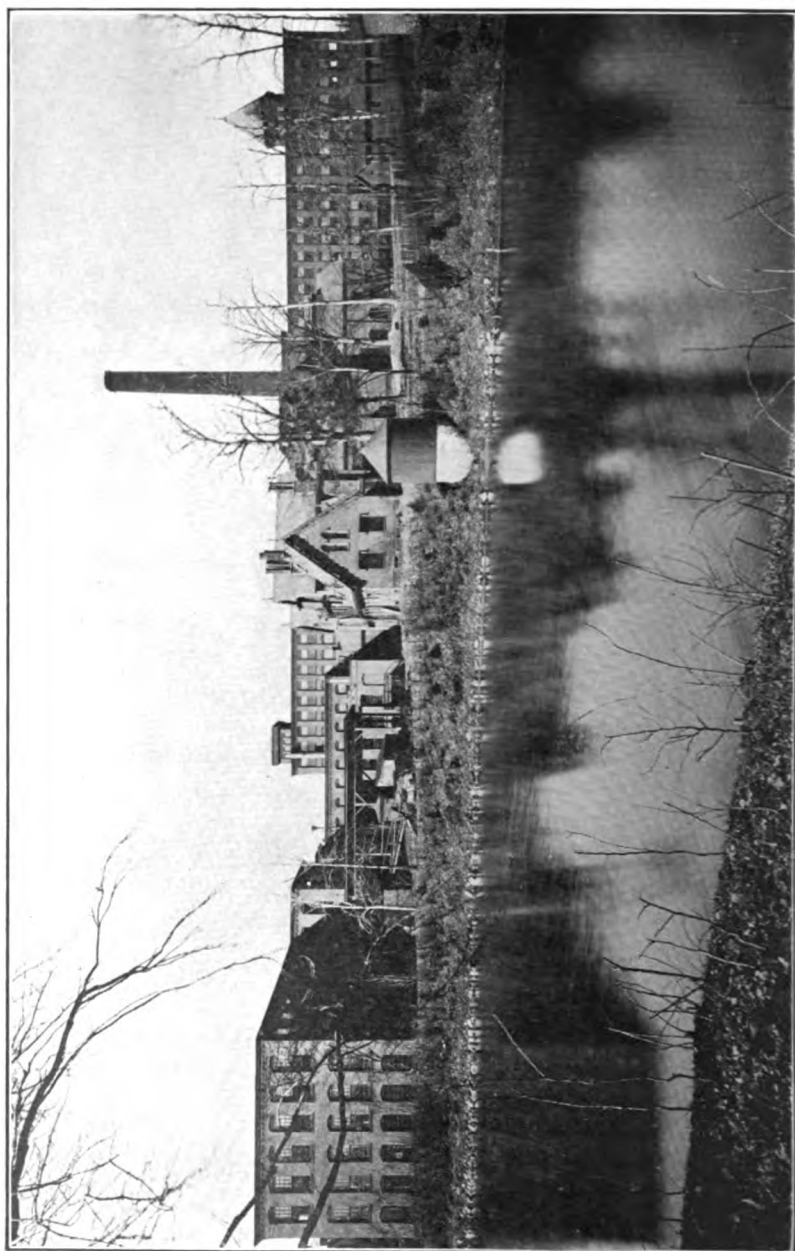
UNDERWOOD TYPEWRITER CO., HARTFORD.

UNDERWOOD TYPEWRITER COMPANY.

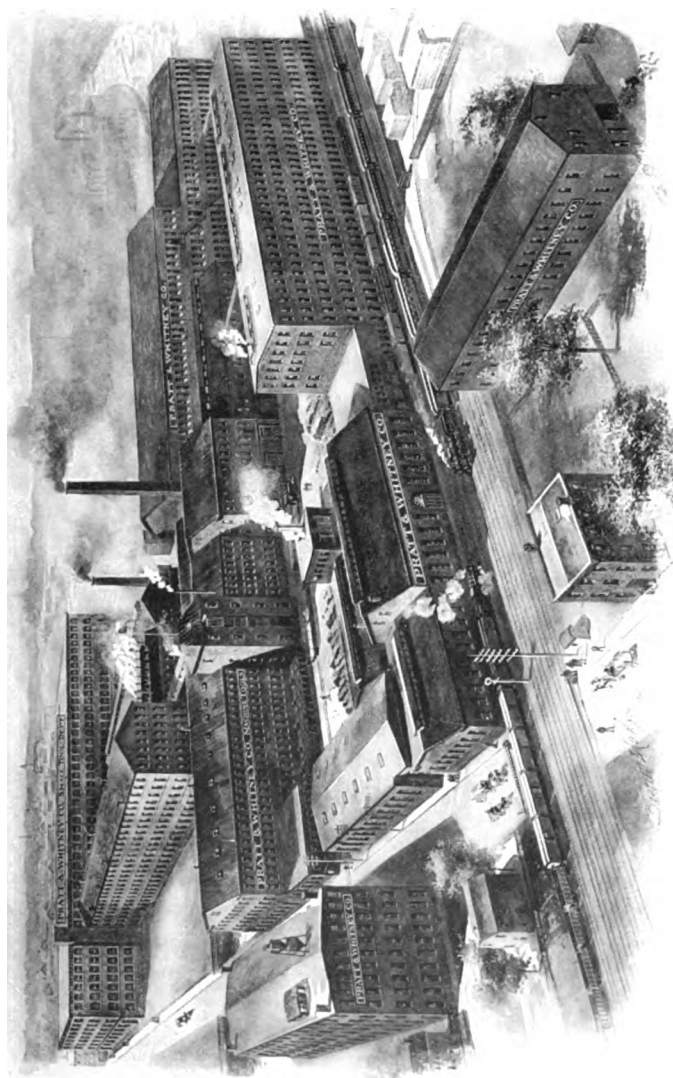
HARTFORD.

These works were originally located at Bayonne, N. J. Removed to the present location at Hartford in the month of June, 1901.

It has a capacity of 115 complete Underwood typewriters per day and employs in round numbers 1,000 hands, about eighty per cent. of which would be classified as "skilled labor," the balance being ordinary or "unskilled labor." The factory runs continuously throughout the year, and the average earnings of employes amount to about \$10.00 per week each. It occupies for manufacturing purposes about 120,000 square feet of floor space, all of which is used to manufacture the Underwood typewriter.



UNDERWOOD TYPEWRITER CO., HARTFORD (REAR VIEW).



PRATT & WHITNEY CO., HARTFORD, MACHINE TOOL DEPARTMENT.

THE PRATT & WHITNEY CO.,

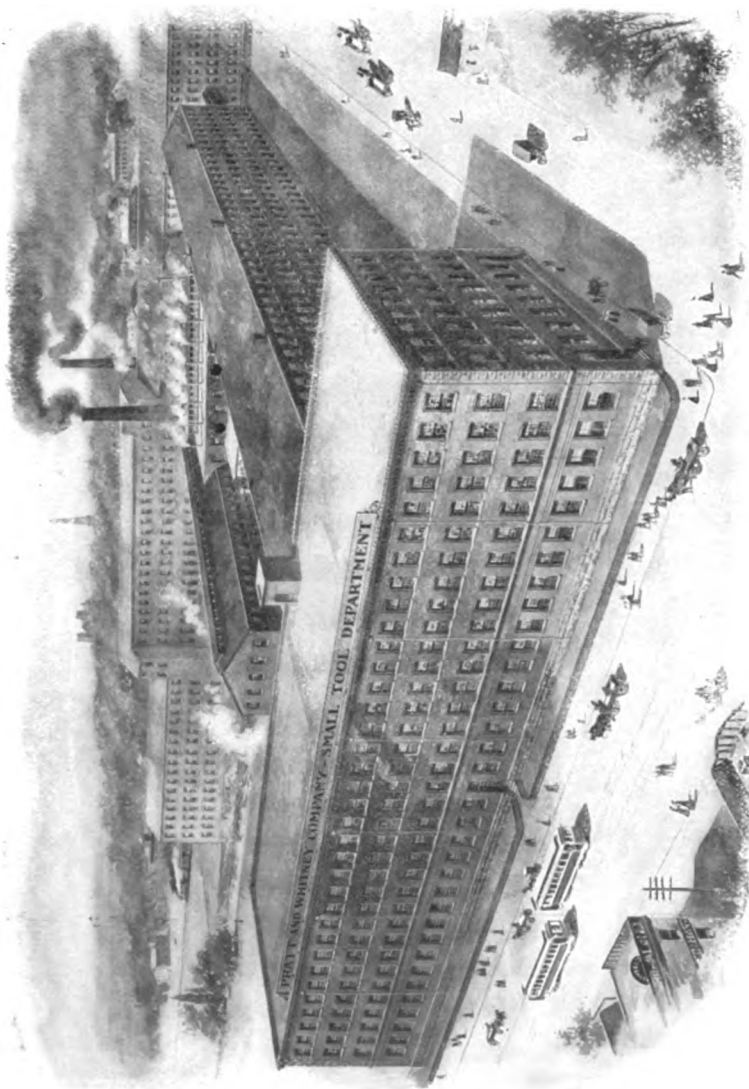
HARTFORD.

MACHINE TOOL DEPARTMENT.

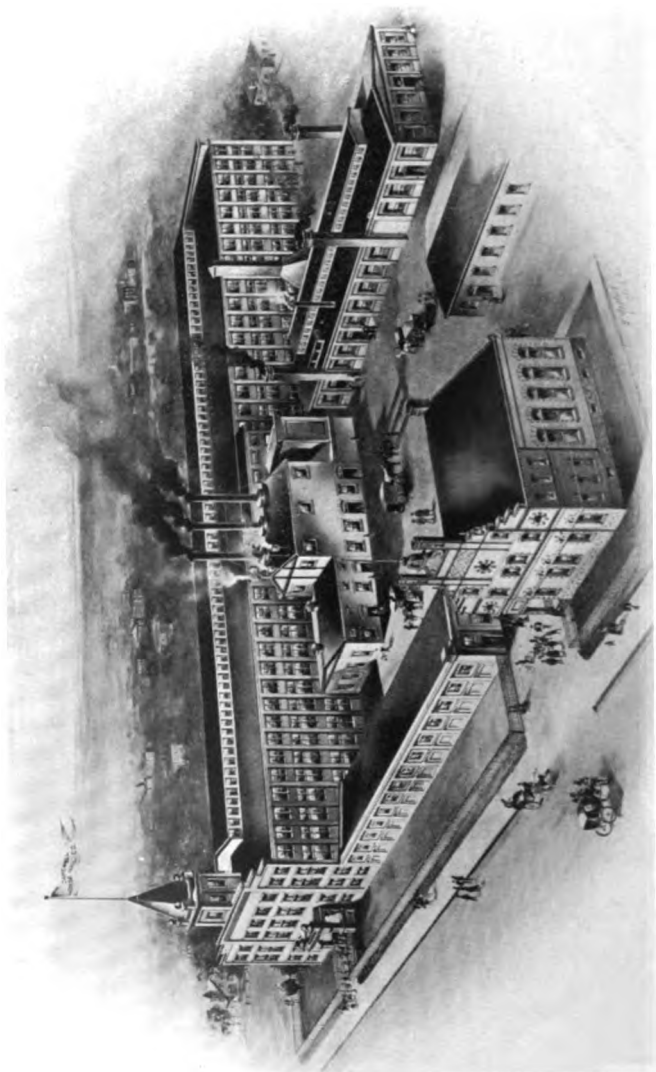
Illustrations are here shown of the extensive establishment of The Pratt & Whitney Company. This Company was established in 1860, and manufactures in its main buildings high grade machine tools of standard and special types and precision machinery. Particular attention is given to equipment for armories and arsenals.

SMALL TOOL DEPARTMENT.

Other lines of manufacture are carried on in what is known as the small tool department (cut of which is shown on next page) and consist of taps, dies, reamers, milling cutters and allied small tools, such as slitting saws, ratchet drills, lathe tools, tapping heads, boiler punches, reamers and taper pins. Its products are known the world over and have a high reputation.



THE PRATT & WHITNEY CO., HARTFORD, SMALL TOOL DEPARTMENT.



THE CAPEWELL HORSE NAIL CO., HARTFORD.

THE CAPEWELL HORSE NAIL CO.,
HARTFORD.

This company was organized in 1881. Its manufacturing business was started in the building at No. 438 Asylum street and was afterward removed to No. 133 Sheldon street, where many additions were made to the plant until the business outgrew the room at that place. In 1892 the company erected a factory at the corner of Charter Oak and Governor streets. The buildings were enlarged several times until in 1902 it had the largest and best equipped horse nail plant in the world. On July 3d of that year the entire plant, with the exception of a fire-proof storehouse and the office building, were destroyed by fire. Since that time new buildings have been erected which are much larger than those burned.

The business of the company has steadily increased from year to year until, at the present time, it manufactures something more than one-half of the horse nails used in the United States, and has a large export business to nearly all the foreign countries.

HARTFORD.

Following is some statistical data concerning the town of Hartford, which is taken from the United States Census report for 1900, issued in 1902:

All industries	888
Total capital	\$30,500.047
Salaries	\$1,475,519
Average number of wage earners	13,363
Total wages	\$7,603,809
Total miscellaneous expenses	\$3,375,585
Total cost of materials used	\$14,103,167
Value of products	\$31,145,715
Annual earnings per employe	\$569.02

THE ASSAWAGA COMPANY, INC.,

KILLINGLY (DAYVILLE).

From deeds owned by the company and from records which they are able to find it appears that the first identification of the property or privilege with the woolen industry was in 1857, when the firm of S. & H. Sayles hired the privilege and put in four sets of satinet machinery in the then existing buildings. The buildings were burned in August, 1858, entailing a loss of some \$6,000, on goods that belonged to New York parties. The Messrs. Sayles assumed this loss, purchased the property, and immediately set about rebuilding. Within sixty days the new buildings were completed, six sets of machinery were installed and the manufacture of goods again commenced. After the purchase of the privilege and property by S. & H. Sayles in 1858, various additions and improvements were made to the water power, additional land was acquired, new buildings were erected, and the works were run in full at Dayville, as well as at the privilege on the Whitestone river which were owned by the Messrs. Sayles.

During the civil war the Dayville works were engaged largely in the manufacture of army cloths. The Messrs. Sayles were heavily involved with the government at one time on the army cloth contracts, but after long delay they succeeded in collecting the amount due, or compromised the suit in some manner. The copartnership of S. & H. Sayles continued until February, 1879, when the firm suspended payment. A compromise was made with the creditors. Harris C. Sayles retired from the firm, and business was resumed late in 1879 under the name of Sabin L. Sayles. In the meantime Hon. Chas. A. Russell married one of the daughters of Sabin L. Sayles, and was associated with Mr. Sayles in the business. The business was prosperous, and Mr. Sayles started in 1881 the erection of a new mill 54x204

feet, with boiler house, dye house, etc. These buildings were completed in 1883, and the machinery installed. The firm name was then changed to Sabin L. Sayles & Co., (Hon. Chas. A. Russell, now deceased, having been admitted into the partnership). Early in 1884 the name was changed to The Sabin L. Sayles Company, incorporated by special act of the Connecticut Legislature. Mr. Sayles was president, and Hon. Charles A. Russell secretary and treasurer of the newly incorporated company. Business was continued under this title until July, 1893, when in the general financial panic it was obliged to go under. In the meantime (Dec. 30th, 1891) Mr. Sayles died, and at the



THE ASSAWAGA COMPANY, INC., DAYVILLE.

time of the failure of The Sabin L. Sayles Company, in July, 1893, Mr. Russell was the managing president.

The works were idle from July, 1893, until about July, 1895, when a new corporation was formed, with new interests, under the name of The Dayville Woolen Company. This title held until the failure of this company, Nov. 18th, 1901. The works were run for a period under a trustee for the property, under the direction of the U. S. Court in Bankruptcy, until the sale of the property was ordered in Nov. 1902. The property was purchased under the court's order of sale by Mr. Franklin S. Jerome, of Norwich. From him the property was acquired by the present The Assawaga Company, Incorporated.

The early history of the privilege is closely related to the history of Dayville. It appears from records that the privilege was first started as far back as 1828. John Day, the elder (for whom Dayville was named), first started it, and for a time the manufacture of cotton goods was carried on. There was also a smithy located on the privilege. It continued under various ownerships principally as a cotton manufacturing plant, until 1857, when the Messrs. Sayles hired it, and later bought it of John Day, the younger, who had succeeded to the ownership.

Below is a detailed statement of the size of the different buildings connected with The Assawaga Company, Inc.:

Main mill—54x204 feet, 4 stories and attic.

Picker house annex—40x64 feet, 2 stories and attic.

Boiler house—40x62 feet, 2 stories and attic.

Machine shop and stock room—40x100 feet, 2 stories and basement.

Dye house—40x49 feet.

Storehouse, No. 1—50x65 feet, 2 stories and basement.

Storehouse, No. 2—30x60 feet, 2 stories.

Grist mill, 50x72 feet, 2 stories.

Fifty tenements connected with the company are owned by them.

KILLINGLY (Danielson.)

Following is some statistical data concerning the town of Killingly, which is taken from the United States Census report for 1900, issued in 1902:

All industries	74
Total capital	\$2,174,445
Salaries	\$46,402
Average number of wage earners	1,263
Total wages	\$441,033
Total miscellaneous expenses	\$131,734
Total cost of materials used	\$811,679
Value of products	\$1,705,997
Annual earnings per employe	\$349.19

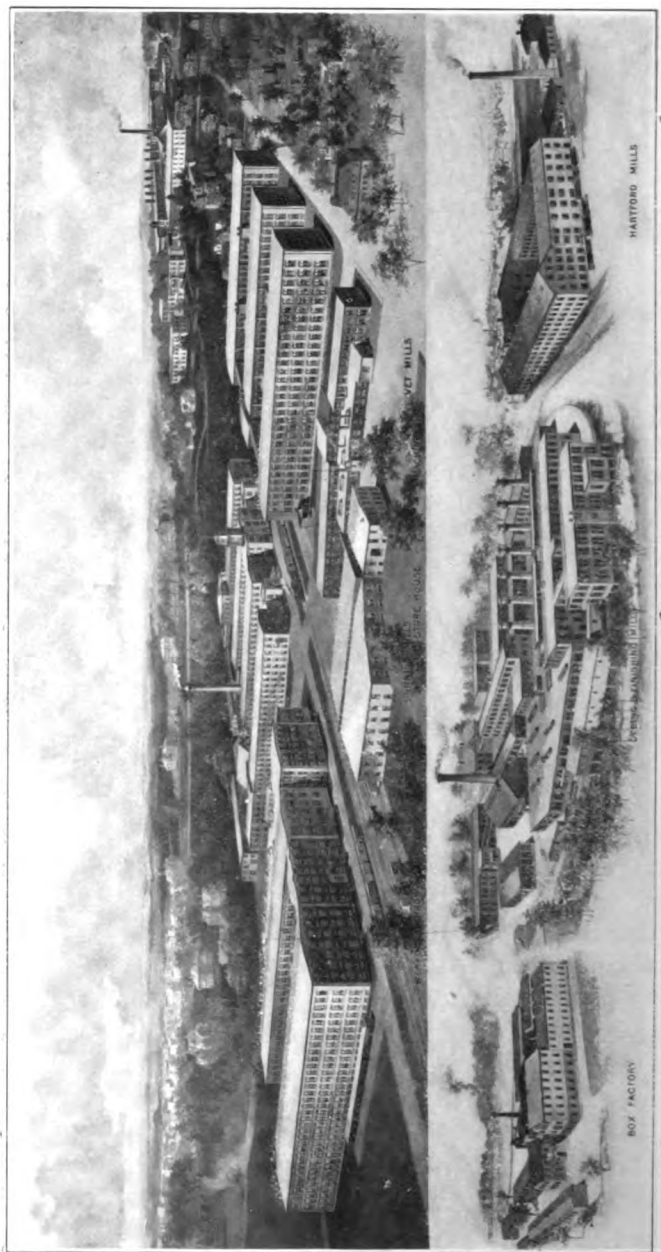
CHENEY BROTHERS,
MANCHESTER (SOUTH MANCHESTER).

The silk business of Cheney Brothers was first commenced in 1836, making sewing silk only. It was incorporated in 1854. At the present time, they manufacture nearly every variety of silk threads and yarns, woven goods for piece dyeing and printing, dress silks, velvets, upholstery goods and ribbons. They occupy 984,854 square feet of floor space and employ about 3,400 hands.

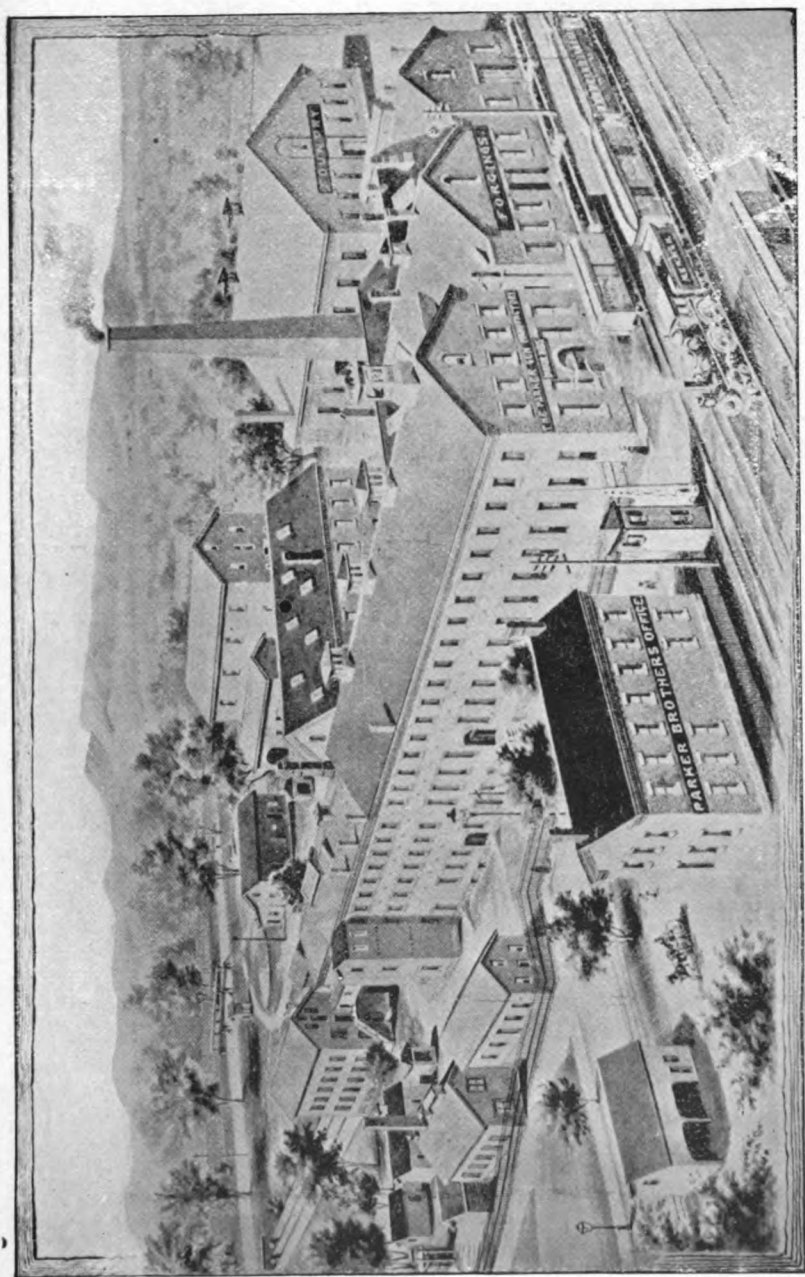
MANCHESTER.

Following is some statistical data concerning the town of Manchester, which is taken from the United States Census report for 1900, issued in 1902:

All industries	93
Total capital	\$7,330,806
Salaries	\$217,290
Average number of wage earners	3,118
Total wages	\$1,370,656
Total miscellaneous expenses	\$194,812
Total cost of materials used	\$3,084,627
Value of products	\$5,939,943
Annual earnings per employe	\$439.50



CHENEY BROTHERS, SOUTH MANCHESTER.



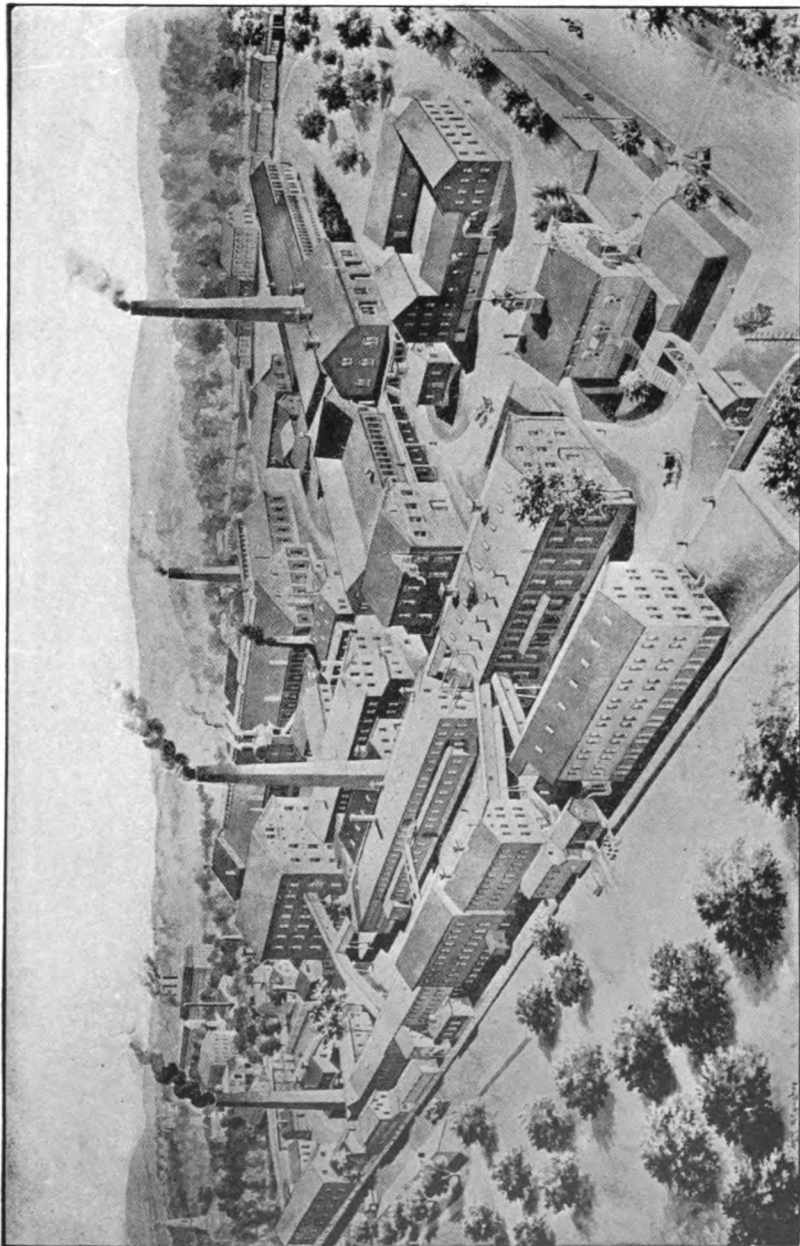
PARKER BROS., MERIDEN.
A DEPARTMENT OF THE CHARLES PARKER CO., MANUFACTURING THE CELEBRATED PARKER SHOT GUN.

THE CHAS. PARKER CO.,

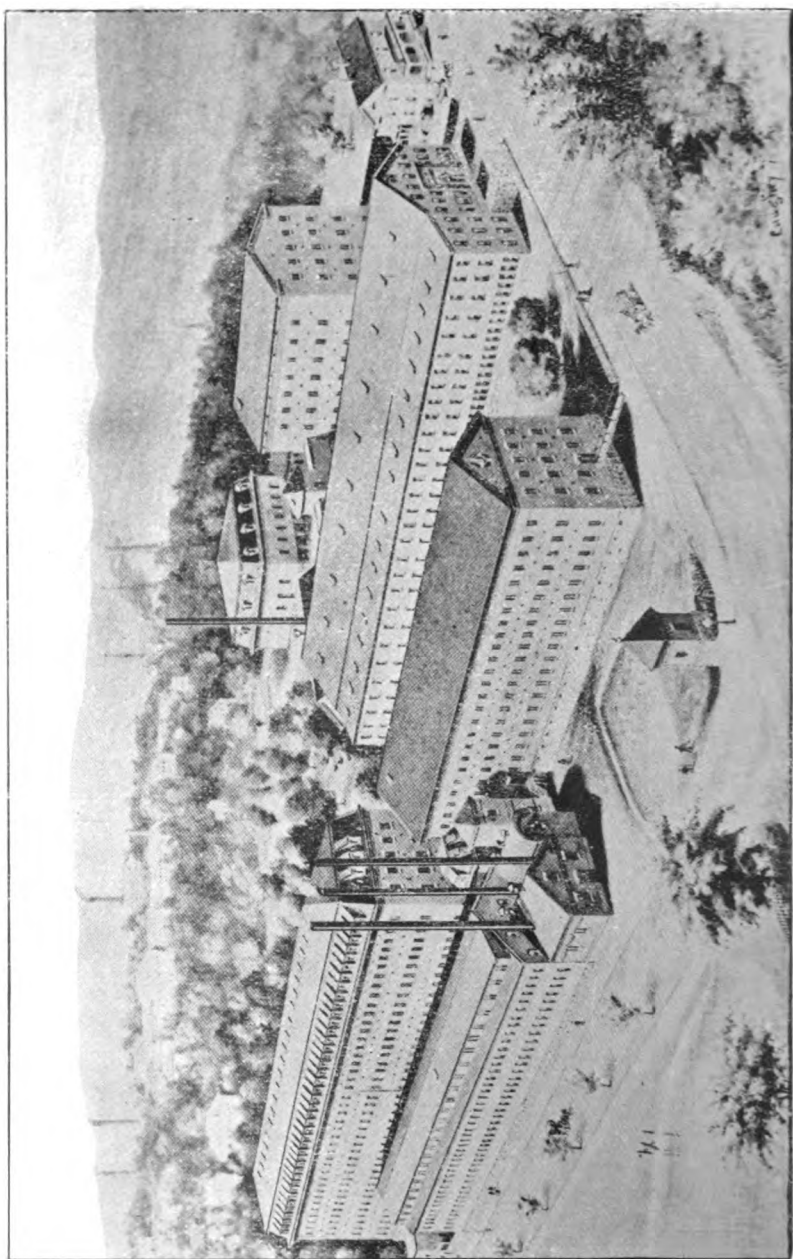
MERIDEN.

The business was founded by the late Hon. Charles Parker in 1832, being among the pioneer industries contributing to the healthy growth of a small New England village into a prosperous manufacturing city. In 1876 the business was incorporated under the present name with Charles Parker, president; Charles E. Parker, vice president; Dexter W. Parker, secretary-treasurer.

Originally the product of the works was coffee mills, but gradually other lines were introduced and the business extended until to-day their products consisting of coffee mills, vises, wood screws, tinned steel spoons, knives and forks, lamps, chandeliers, lavatory fixtures, bath room furnishings, piano stools, chairs, benches and scarfs and music cabinets are well and favorably known throughout the world. The present officers are: Dexter W. Parker, president; Wilbur F. Parker, vice president; Wm. H. Lyon, secretary-treasurer.



THE CHAS. PARKER CO., MERIDEN.



THE MERIDEN CURTAIN FIXTURE CO., MERIDEN.

THE MERIDEN CURTAIN FIXTURE CO.,

MERIDEN.

The Meriden Curtain Fixture Co. was incorporated Oct. 10th, 1870, with capital stock of \$20,000.

The company was first engaged in the manufacture of so-called drop and stationary fixtures.

In 1877 the capital stock was increased to its present amount, \$40,000.

The company has patented and perfected from time to time various styles of rollers, comprising spring balance rollers and spring stop fixtures, both wood and tin. Departments have also been added for the manufacture of shade fringes and all kinds of shade cloth which enter into the window shade business, until at the present time the company is equipped to manufacture the latest and most improved shade rollers, window shades and fringes.

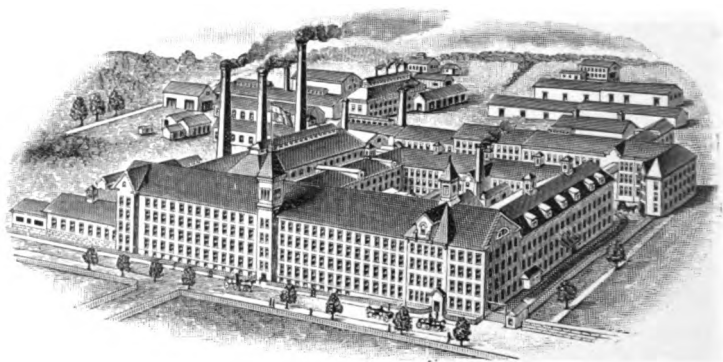
The late Hon. Charles Parker was elected president in 1874 and continued to hold that office until the time of his death in January, 1902.

The present officers of the company are: D. W. Parker, acting president; D. W. Parker, treasurer; W. F. Parker, secretary; W. H. Lyon, assistant treasurer.

EDWARD MILLER & CO.,

MERIDEN.

The firm of Edward Miller & Co. was formed in 1866 with a capital stock of \$200,000, and since that time has been one of the largest manufacturers of lamps, bronzes, sheet brass and various forms of utensils made from that metal. In 1884 the company began the manufacture of the "Rochester" lamp which was a revelation as a light-giver. After long continued experiments this was succeeded by their now well-known "Miller," which they consider the



EDWARD MILLER & CO., MERIDEN.

perfection of center draught lamps. They also manufacture the "Juno," "Empress," "Dresden" and "Astral" lamps in all varieties, as well as the Miller oil heaters and a variety of designs in gas and electric fixtures.

They have now a capital stock of \$500,000 and have offices in New York, Boston and Philadelphia.

The present officers of the company are: Edward Miller, President; Edward Miller, Jr., Secretary and Treasurer, and Benjamin C. Kennard, Assistant Treasurer.

THE WILCOX & WHITE COMPANY.

MERIDEN.

The Wilcox & White Organ Company was organized in 1876, and commenced the manufacture of a line of superior parlor and chapel organs. These organs have become renowned the world over for durability and sweetness of tone.

In 1888 the Symphony Orchestral (self playing) organ was introduced and was received with great favor by both laymen and musicians. The Symphony is an organ which may be played in the usual manner by the keyboard or may be played by the use of perforated rolls of music. The latter method permits a music lover, even though entirely lacking in musical education, to play with skill and expression.

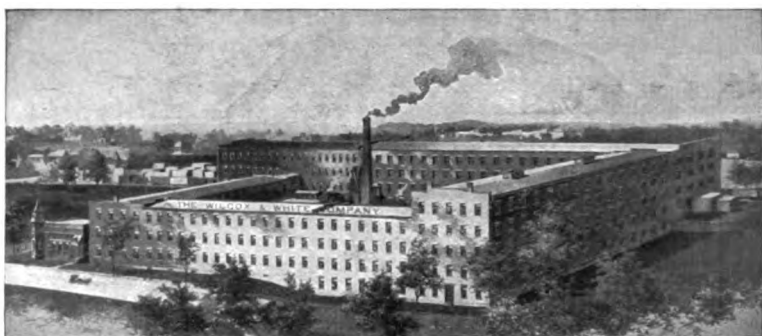
In 1897 The Wilcox & White Co. was organized and took over the business of The Wilcox & White Organ Co. The instruments now manufactured by this company are the Symphony Orchestral organ, as mentioned above, and the Angelus and Angelus Orchestral piano players.

The Angelus is an instrument by means of which any one can play upon the piano any piece of music whatsoever, even though he does not know one note of music from another. It is equipped with simple, yet very ingenious devices, so that the performer has the means for phrasing and shading, for accenting a note or chord, and for subduing the accompaniment and bringing out the melody either in the treble or bass.

The Angelus Orchestral is similar to the Angelus excepting that it contains finely voiced organ reeds, which may be used to enhance the beauty of many compositions. With this instrument you may use the piano alone or the reeds alone or the two in combination, producing charming orchestral effects.

The Angelus is the pioneer piano player and the company

is naturally very proud of having placed before the public the first instrument of this kind, which has proved to be such a boon to all lovers of music and which has created a new industry. The favor with which these instruments have been received by the public is attested to by the fact that about two years ago the company was compelled to build a large addition to its factory (which about doubled the output) in order to supply the demand.



THE WILCOX & WHITE CO., MERIDEN.

MERIDEN.

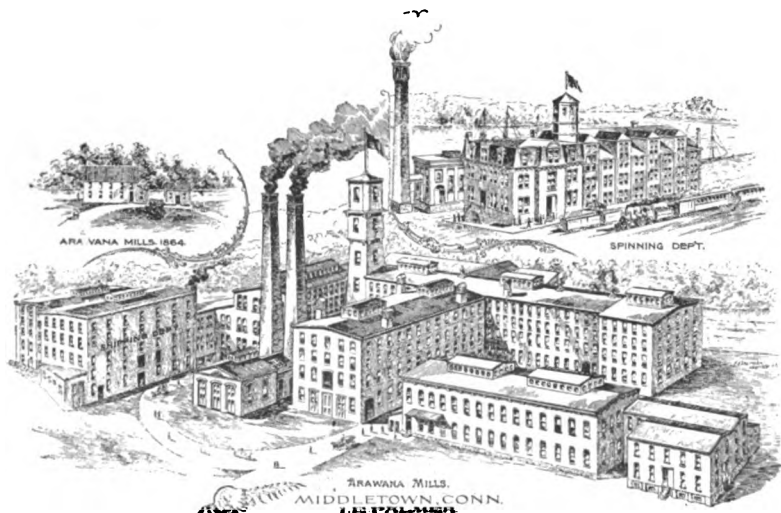
Following is some statistical data concerning the town of Meriden, which is taken from the United States Census report for 1900, issued in 1902:

All industries	260
Total capital	\$16,699,004
Salaries	\$690,756
Average number of wage earners	7,531
Total wages	\$3,702,240
Total miscellaneous expenses	\$1,085,142
Total cost of materials used	\$5,861,612
Value of products	\$13,485,640
Annual earnings per employe	\$491.60

I. E. PALMER,

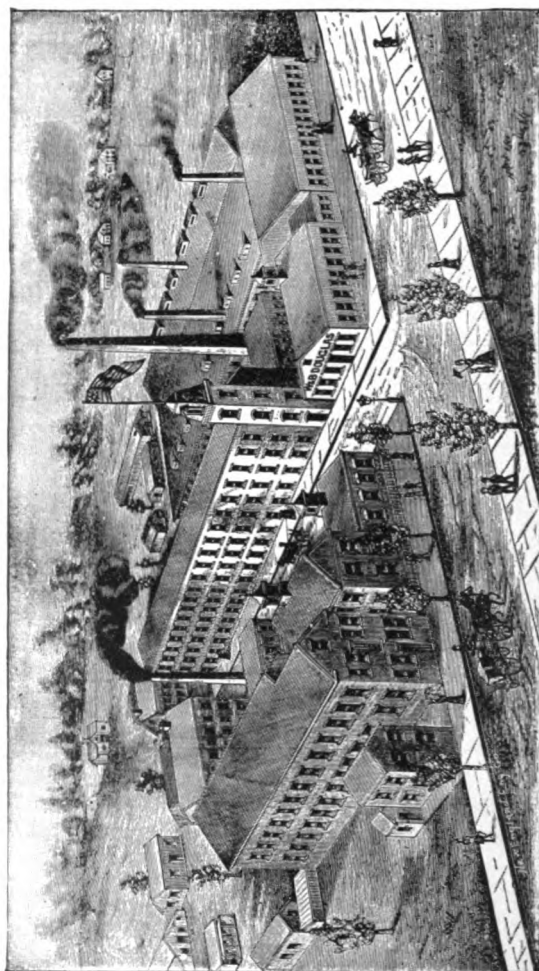
MIDDLETOWN.

The space occupied for manufacturing purposes by I. E. Palmer is a little over 100,000 square feet. He commenced manufacturing on this site in 1864, making picture cord and mosquito netting, and gradually branched into a varied line



I. E. PALMER, MIDDLETOWN.

of cotton tissues. The line of manufactures at present comprises hammock and hammock accessories, crinoline dress linings, mosquito, horse fly and minnow nettings, window screen and piano cloth, mosquito canopies, canopy supports and fixtures, self-adjusting pulleys, etc. Sheer and Swiss finishing.



W. & B. DOUGLAS, MIDDLETOWN.

W. & B. DOUGLAS,

MIDDLETOWN.

John Douglas, of New Haven, was an all-around mechanic. He made clocks, fire engines, surgical instruments; in fact, anything requiring skill was brought to his workshop on State street. In 1830 he made the first "Douglas Pump" for hand use.

His younger brother, William, was serving an apprenticeship with him at this time, and soon went to Middletown to work as a brass mouldmaker in the old pewterer's shop next to the South Main street schoolhouse. Here William Douglas met Wm. H. Guild, and in 1832 they formed a co-partnership called Guild & Douglas.

They opened a small foundry and machine shop in the old Lancasterian schoolhouse, corner of William and Broad streets, noted as a meeting place for Abolitionists.

In 1839 Mr. Guild went to Brooklyn and later became famous in the manufacture of steam pumps. Mr. Guild's place was taken by William's younger brother, Benjamin, who had left the old family home at Northford a few years before. Benjamin Douglas had prepared himself for a business career by an apprenticeship at the old Sanseer factory, and a short experience in the drug business at Norwich, besides working for three years with Guild & Douglas. He devoted himself mainly to the buying and selling, while William with his inventive genius, grappled with the mechanical end of the business. The Company was now called W. & B. Douglas.

From the start until the middle forties, the products were varied, and the means of payment equally so. Garden truck and cord wood played an important part in settling the six and nine-months notes customary at the time. Sometimes the firm made lathes with wooden ways, chain feed and wood hangers for the countershaft. Again, they made

small steam engines, also hand fire engines. Cornshellers, Closson's plows and parts for a Ketcham mowing machine were among the articles made for outside parties. For about ten years, beginning with 1850, they made quite a line of butts and hinges, under the Horton & Armstrong patents. The Portland quarries had most of their foundry work done here for many years. Their extensive patronage was much appreciated for the young and struggling concern was often in hard straits, and once was obliged to compromise with its creditors, but afterwards paid all claims in full with interest.

The first patent for a hand pump was taken out in 1842, and the document is signed by Daniel Webster, then secretary of state. This pump was the invention of William Douglas, and with some slight modifications is still a standard article.

John Douglas had never attempted to supply more than a local market but William and Benjamin were the first to conceive the idea of selling pumps as a regular article of commerce.

The pump business absorbed more and more of their attention until at the outbreak of the civil war, it was practically the only line of work. This specialty has been pursued ever since, and for many years W. & B. Douglas were the only manufacturers of "pumps exclusively" in the world.

In 1858 William Douglas died. In order to secure for his widow and children the benefit of his labors, the Legislature was convened in extra session and a special charter granted in 1859, which capitalized the joint interests in the form of a corporation under the same name as the old co-partnership.

Benjamin Douglas died in 1894, maintaining an active interest in affairs until a few years before his death. No less than ten bearing the family surname have been connected with the business, besides at least a half-dozen others related either by blood or by marriage.

Having been first in the field, the products of W. & B. Douglas are distributed through all the markets of the

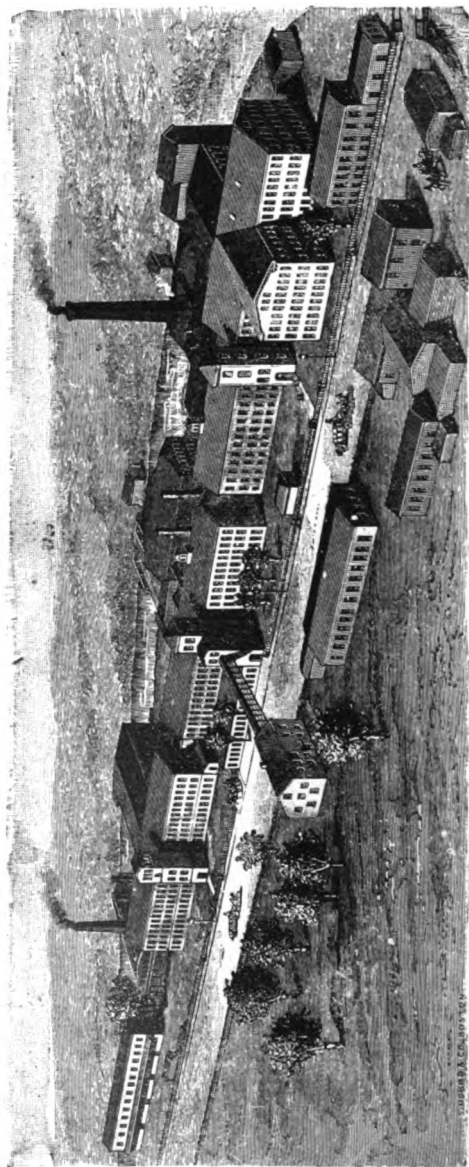
world, and their aim is that the quality shall be unexcelled.

The line of goods has been increased until now they manufacture over one thousand different pumps, covering a wide variety of human needs.

MIDDLETOWN.

Following is some statistical data concerning the town of Middletown, which is taken from the United States Census report for 1900, issued in 1902:

All industries	188
Total capital	\$5,100,485
Salaries	\$171,400
Average number of wage earners	2,916
Total wages	\$1,199,713
Total miscellaneous expenses	\$237,604
Total cost of materials used	\$2,636,493
Value of products	\$4,825,649
Annual earnings per employe	\$411.42

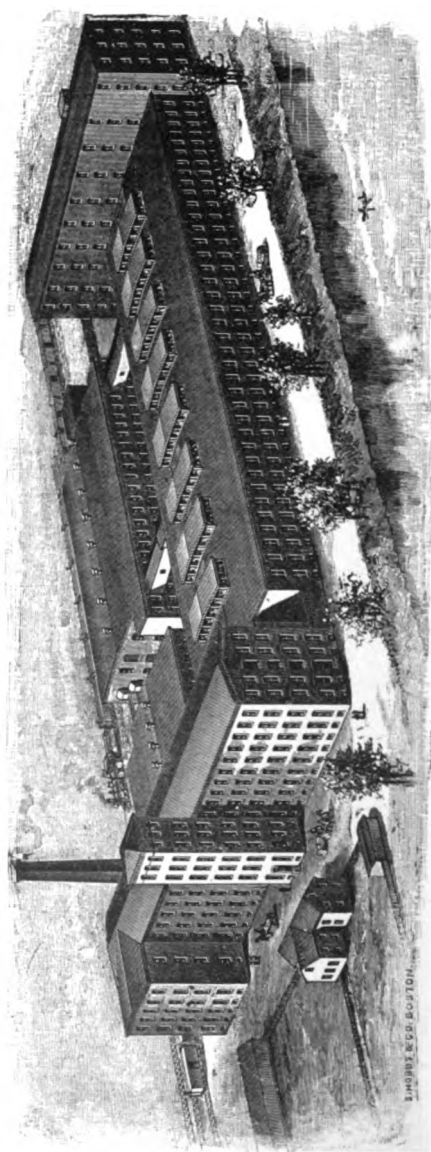


GOODYEAR'S METALLIC RUBBER SHOE CO., NAUGATUCK, MILL N O. I.

GOODYEAR'S METALLIC RUBBER SHOE CO.,

NAUGATUCK.

The Goodyear's Metallic Rubber Shoe Co. was founded in 1843 in the town of Naugatuck and commenced in a very small way the manufacture of rubber shoes. The business promised success and in 1845 the organization of the company took place. From that year to the present year there has been an uninterrupted and continuous successful business career for this corporation. It originally manufactured a few hundred pairs of rubber boots and shoes per day; its present capacity is 30,000 pairs per day. This company was the originator of the Arctic overshoe, and is to-day probably the most successful manufacturer of that particular specialty, although all styles of rubber footwear are manufactured by them. The floor space of the two mills, Nos. 1 and 2, aggregates about 450,000 square feet.



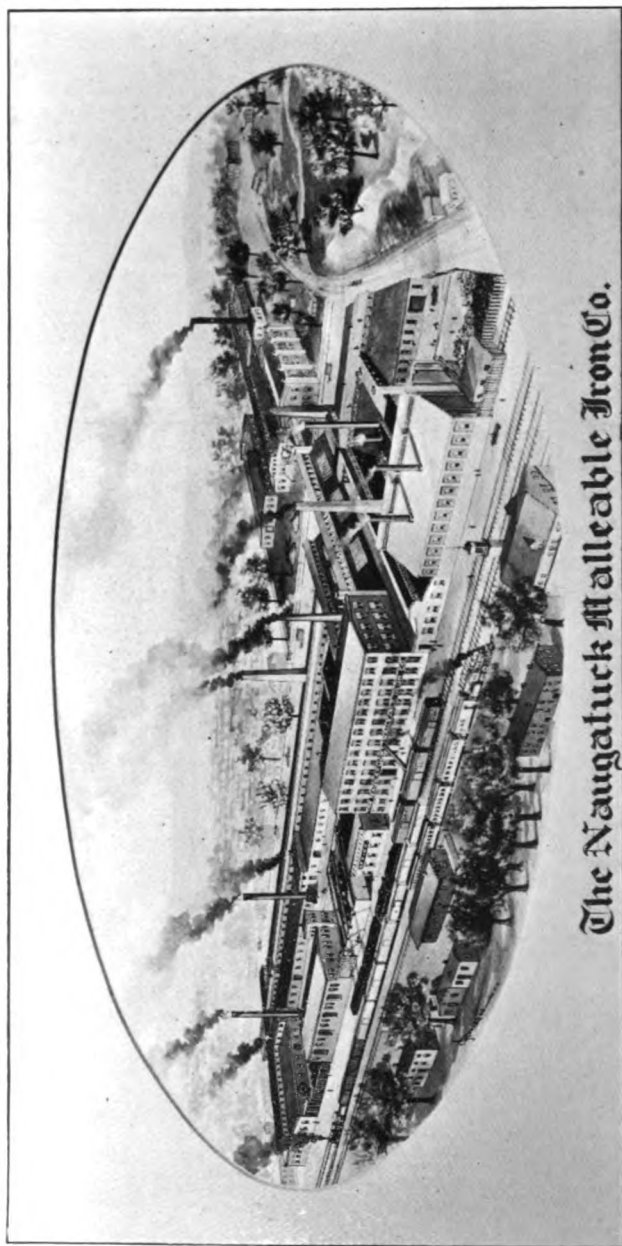
GOODYEAR'S METALLIC RUBBER SHOE CO., NAUGATUCK, MILL NO. 2.

THE NAUGATUCK MALLEABLE IRON CO.,

NAUGATUCK.

This plant takes up about six acres of land, and buildings cover approximately 250,000 square feet of floor space. The business was started as a partnership between Tuttle & Whittemore in the year 1858, was afterwards changed to The Tuttle & Whittemore Co. and in July, 1889, the name was changed to The Naugatuck Malleable Iron Company. The business has been confined to the manufacture of small and medium sized malleable iron castings to order, made by the air furnace process. Special attention has been paid to producing castings such as gun and pistol frames, pipe fittings and couplings of all kinds, which require particularly soft, strong iron that can be easily machined. They also manufacture specialties such as hub bands for carriage and wagon wheels, and carry a large stock of these at all times; they also make shear castings by a special process, enabling them to produce castings to which steel may readily be welded and large quantities of these are used in the manufacture of scissors and shears.

Their present capacity is 8,000 to 10,000 tons per year.

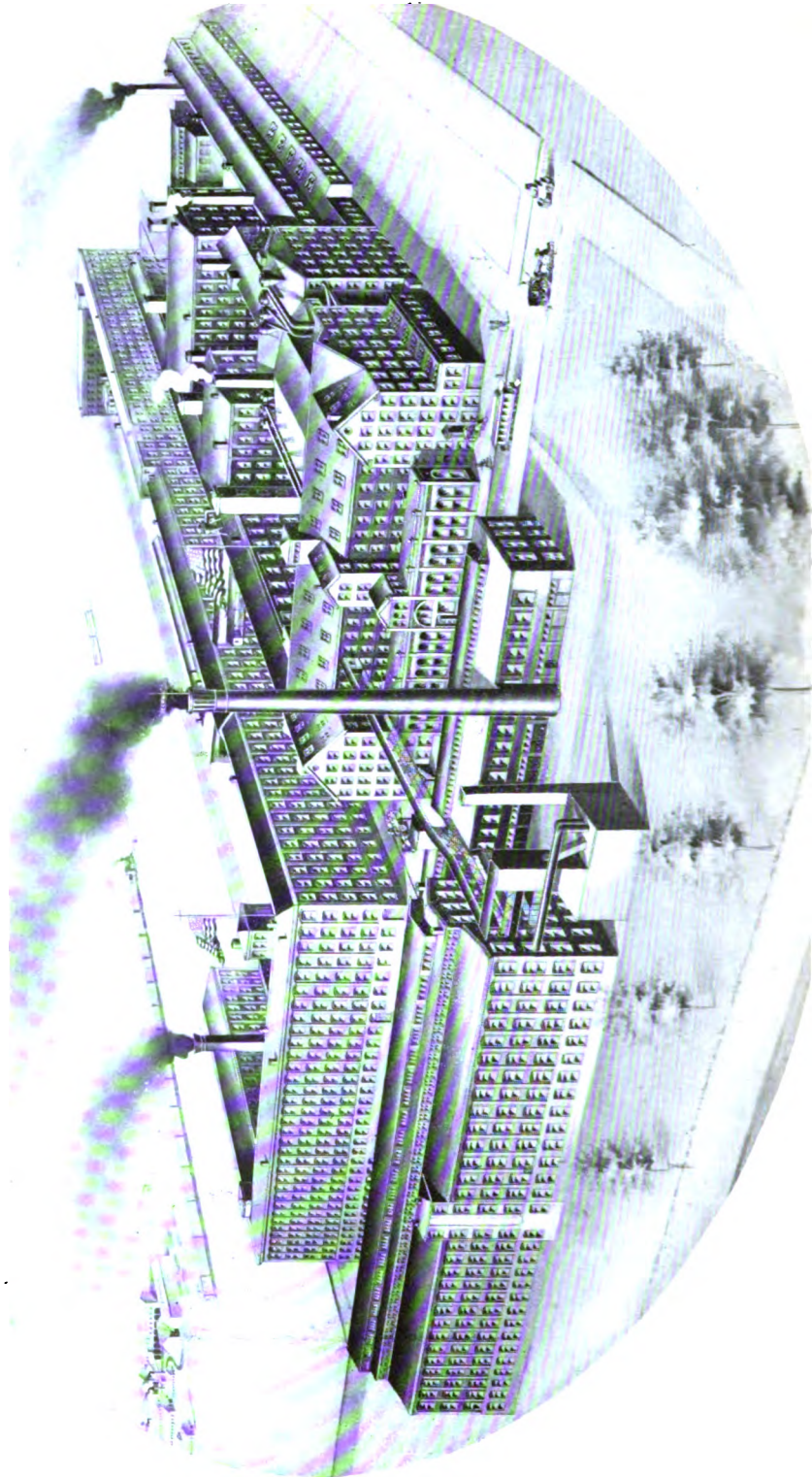


THE NAUGATUCK MALLEABLE IRON CO., NAUGATUCK.

NAUGATUCK.

Following is some statistical data concerning the town of Naugatuck, which is taken from the United States Census report for 1900, issued in 1902:

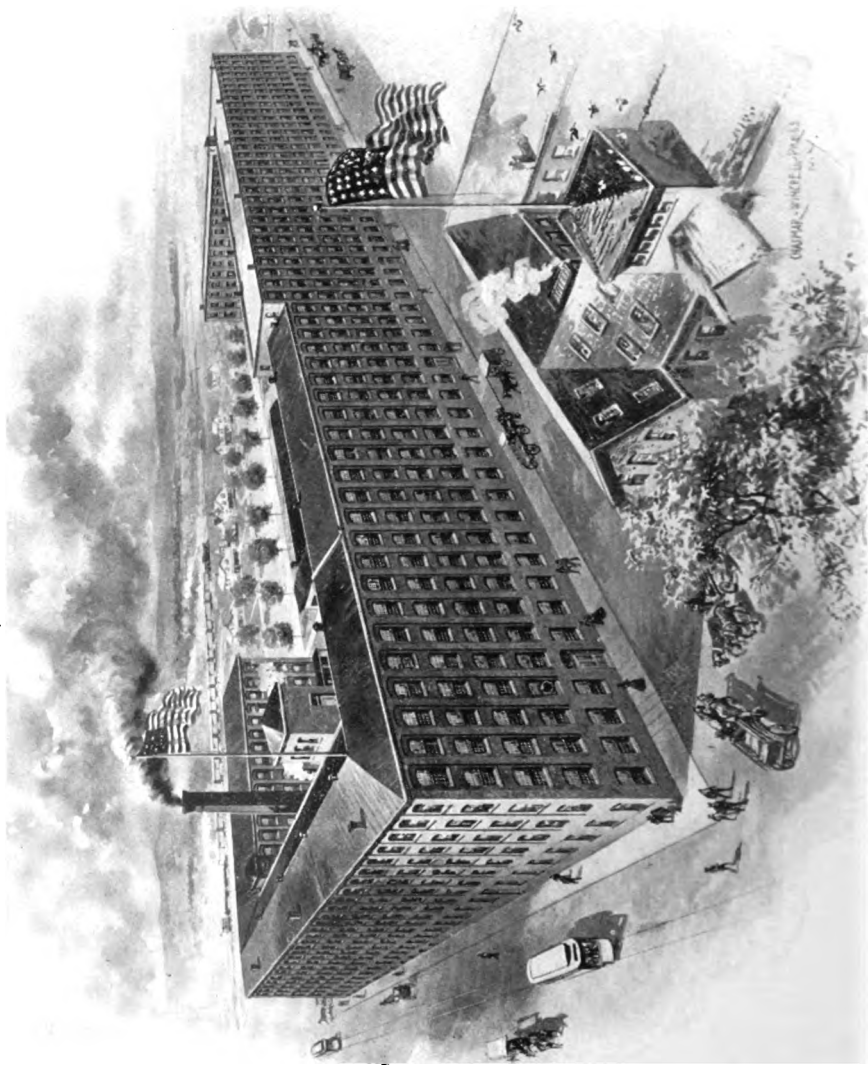
All industries	75
Total capital	\$6,673,684
Salaries	\$121,944
Average number of wage earners	3,297
Total wages	\$1,665,944
Total miscellaneous expenses	\$323,834
Total cost of materials used	\$6,152,981
Value of products	\$9,126,199
Annual earnings per employe	\$505.29



P. & F. CORBIN,

NEW BRITAIN.

The substantial growth of the P. & F. Corbin Company is illustrated here. This establishment is recognized throughout the country as being very large manufacturers of builders and other hardware, and has contributed in no small degree toward making New Britain's world wide reputation of the "Hardware City." It was in 1842 that Philip Corbin came to New Britain, where he secured employment in the shop of Mattison Russell & Company (afterwards Russell & Corbin) at fourteen dollars a month. A little later he was employed by a contractor making locks, and soon began taking contracts on his own account. In 1849 he formed a partnership, and the firm began work in a modest shop which cost, it is said, less than six hundred dollars. In 1851 the present name of P. & F. Corbin was first adopted and its wonderful development began, until now this company is said to be the largest in size of plant, largest in number of men employed, and largest in extent of business done of any in the town.



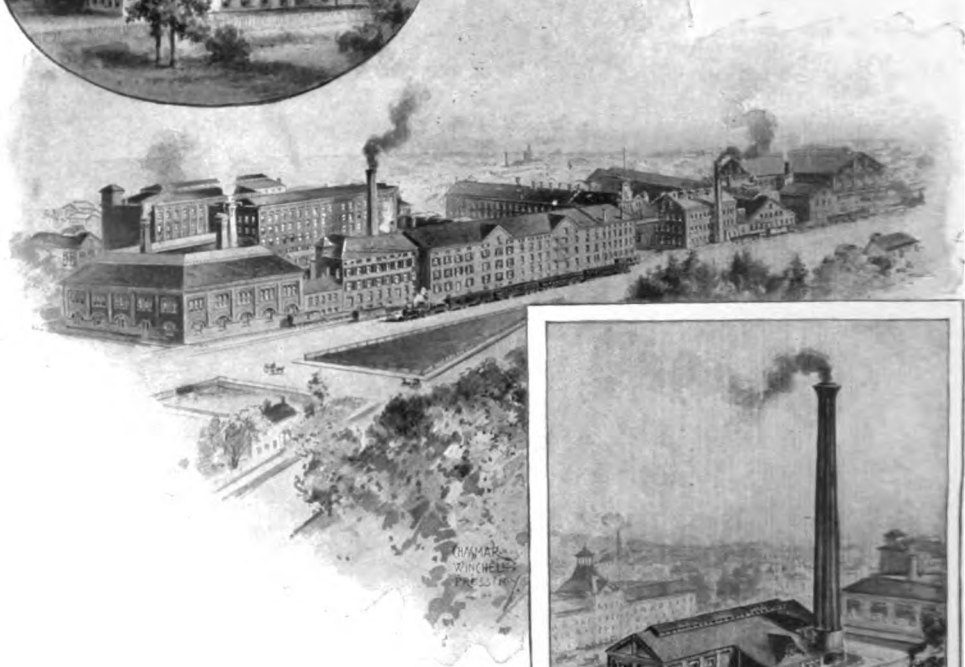
CORBIN CABINET LOCK CO., NEW BRITAIN.

CORBIN CABINET LOCK CO.,

NEW BRITAIN.

In 1879 the manufacture of cabinet locks was begun by the Paul F. Corbin Company and the services of expert workmen were secured to assist in formulating the line and getting it upon the market. Prior to that time nothing in the way of cabinet locks had been made by the company, but now plans were formed to cover this particular field with the same thoroughness that had been displayed in other directions.

In 1882, the cabinet lock business was sold to the Corbin Cabinet Lock Company, a new corporation organized to develop this branch of business. It has enjoyed advantages of an intimate relationship with the parent company, and under broad and capable management it has prospered exceedingly.



RUSSELL & ERWIN MANUFACTURING CO., NEW BRITAIN.

RUSSELL & ERWIN MFG. CO.,

NEW BRITAIN.

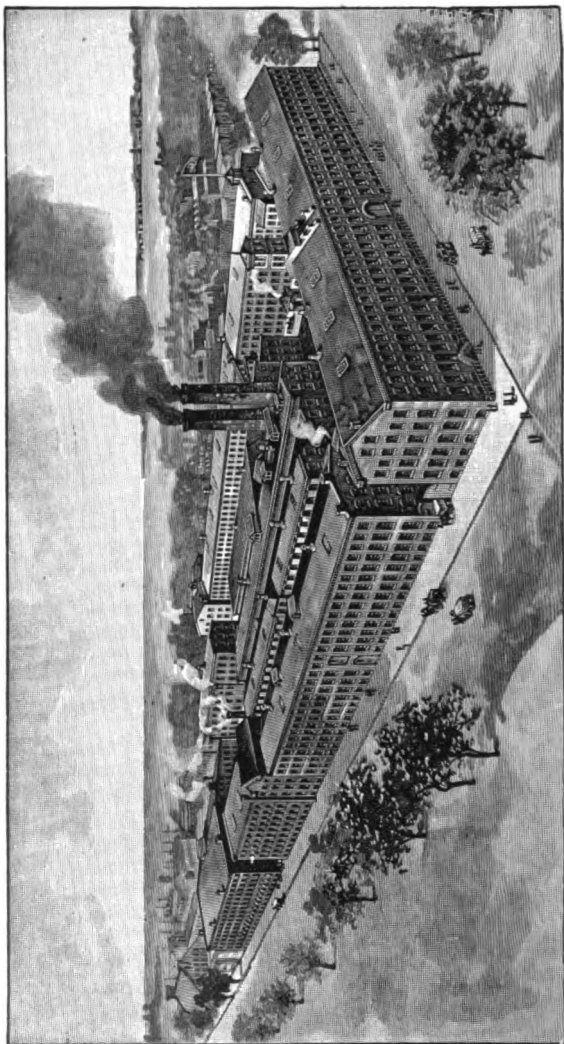
In 1835, F. T. Stanley, W. B. Stanley, Emanuel Russell, Truman Woodruff and Norman Woodruff formed a partnership for the manufacture of plate locks, and for this purpose they built a brick building 34x82 feet, and carried on a small business for several years. This was the beginning of the Russell & Erwin Manufacturing Company, illustrations of whose factories are shown here.

A few years later the company was reorganized, F. T. Stanley only remaining with the new firm, Henry E. Russell and Cornelius B. Erwin becoming partners. Various changes took place during the next three years, and in 1850 the hardware business of several competitors was purchased, and a stock company was formed known as the Russell & Erwin Manufacturing Company, a name the company bears at this time. The company has attained high rank among the large industries of the state and its wares are known the world over.

 NEW BRITAIN.

Following is some statistical data concerning the town of New Britain, which is taken from the United States Census report for 1900, issued in 1902:

All industries	226
Total capital	\$14,115,610
Salaries, officials, clerks, etc.	\$545,057
Average number of wage earners	8,438
Total wages	\$3,841,117
Total miscellaneous expenses	\$956,848
Total cost of materials used	\$5,074,396
Value of products	\$12,260,782
Annual earnings per employe	\$455.22



THE L. CANDEE COMPANY, NEW HAVEN.

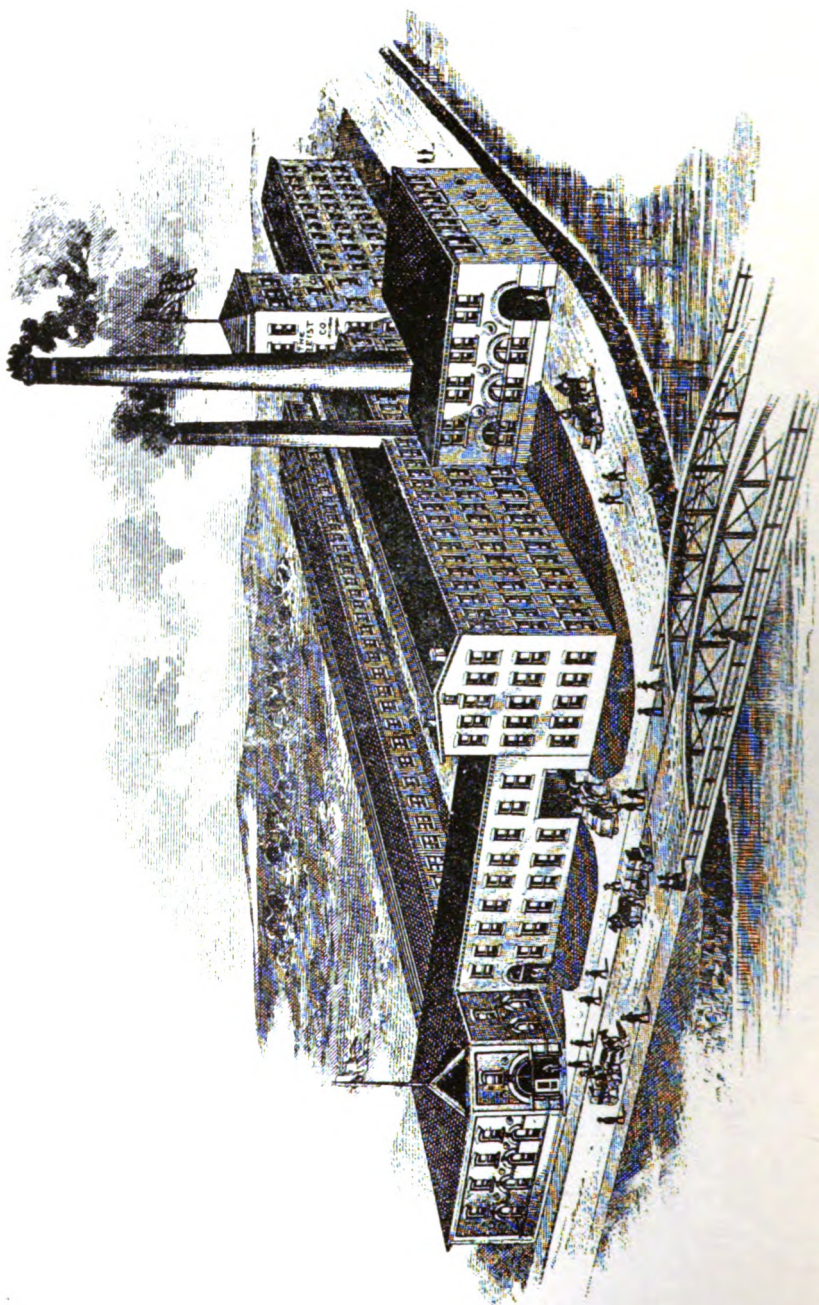
THE L. CANDEE COMPANY,
NEW HAVEN.

The L. Candee Company, of New Haven, founded in 1842, and incorporated ten years later, is the oldest manufacturer of rubber footwear in the world. Starting with a capital of \$6,000 to make vulcanized rubber shoes, under a license granted by Chas. Goodyear, the discoverer of the vulcanizing process, this business has gradually grown into one of Connecticut's most important industries.

The first shoes made were of the buskin style, and the small production was disposed of in New Haven, Hartford, Springfield, Worcester and Boston, by carrying it from store to store in baskets.

To-day the company is utilizing 348,630 square feet of floor space in the manufacture of its product, while the output has increased from a few pairs, in 1842, to 25,000 pairs per day at the present time. The single style has been replaced by many, and when sizes and widths are taken into consideration as well, a careful count shows in excess of 5,000.

In studying the distribution of Candee goods, it is found that the old New England market has extended until it now embraces nearly every civilized country in the world.

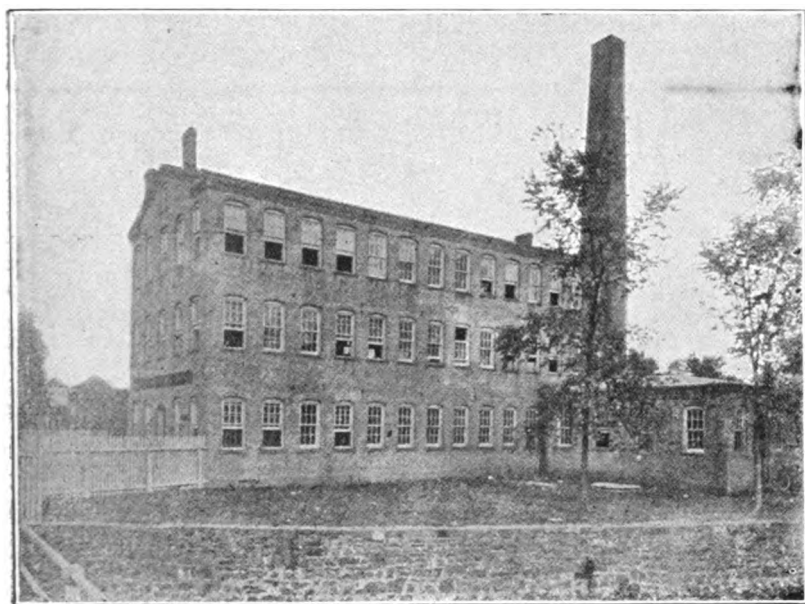


THE GREIST MANUFACTURING COMPANY, NEW HAVEN.

THE GREIST MANUFACTURING COMPANY,
NEW HAVEN.

The Greist Manufacturing Company was incorporated June 16th, 1892. Capital stock, \$35,000. Object, primarily, the manufacture of sewing machine attachments.

In 1892 the manufacture of sewing machine attachments was all in other hands.



THE GREIST MANUFACTURING COMPANY, NEW HAVEN.

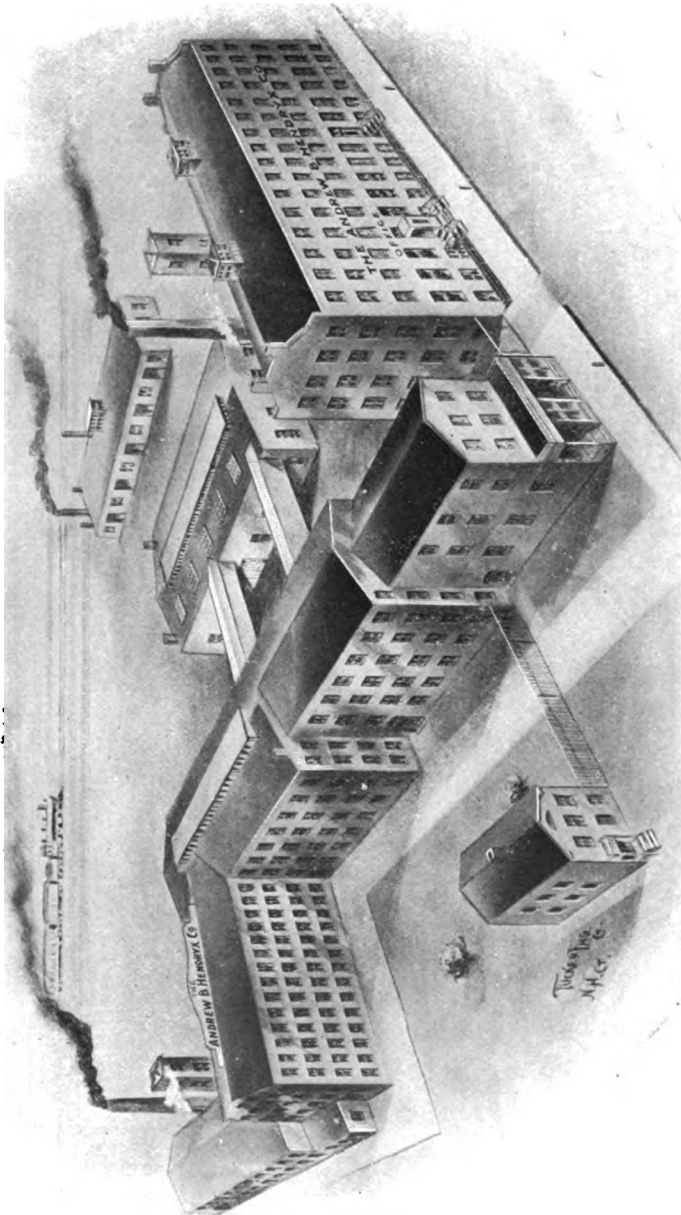
In 1903 the Greist Manufacturing Company is the largest maker of these goods in the world, turning out perhaps three-fourths of all that are used upon the globe.

In 1892 the Company removed to the buildings shown in the smaller of the two cuts, and at that time not one-third of the 8,570 square feet of floor space was used, while in 1903 the plant is as shown in the larger cut, and has over 50,000 square feet of floor space used in manufacturing and every foot of it crowded, not including two large storehouses and a large barn.

In June, 1895, sixty-five hands were employed, while in December, 1903, the four hundred mark has several times been passed, and represents approximately the number now employed. In 1892 The Greist Manufacturing Company did not manufacture sewing machine attachments for any sewing machine maker in the world. In 1903 the Company manufactures attachments for every maker of sewing machines in the world, with perhaps one exception.

The Company confines itself entirely to the manufacture of sewing machine attachments; the material used being almost wholly sheet steel, of which more than one ton is used daily. The plant is equipped throughout with automatic sprinklers, and is provided with every known safeguard against fires. It also owns and operates its own electric light plant; and in the J. M. Greist Hose Company (a factory organization) it enjoys the protection of one of the most efficient fire organizations in the state, if not in the country. In short, the equipment is in every respect up to date.

In 1898 The Greist Manufacturing Company bought out The Johnston Ruffler Company, of Ottumwa, Iowa, then its strongest competitor, and removed the plant to New Haven, a train of thirteen cars being required for its transportation.



THE ANDREW B. HENDRYX CO., NEW HAVEN.

THE ANDREW B. HENDRYX COMPANY.

NEW HAVEN.

The Andrew B. Hendryx Company started business in 1874 in Ansonia, Connecticut, under the name of Hendryx & Bartholomew, cataloguing some fourteen different styles of brass bird cages.

In 1879 the business under the name of Andrew B. Hendryx & Co., moved to New Haven, occupying the factory at 86 and 92 Audubon street. This change was made in order to take advantage of the more favorable shipping facilities and labor conditions existing in the larger coast town.

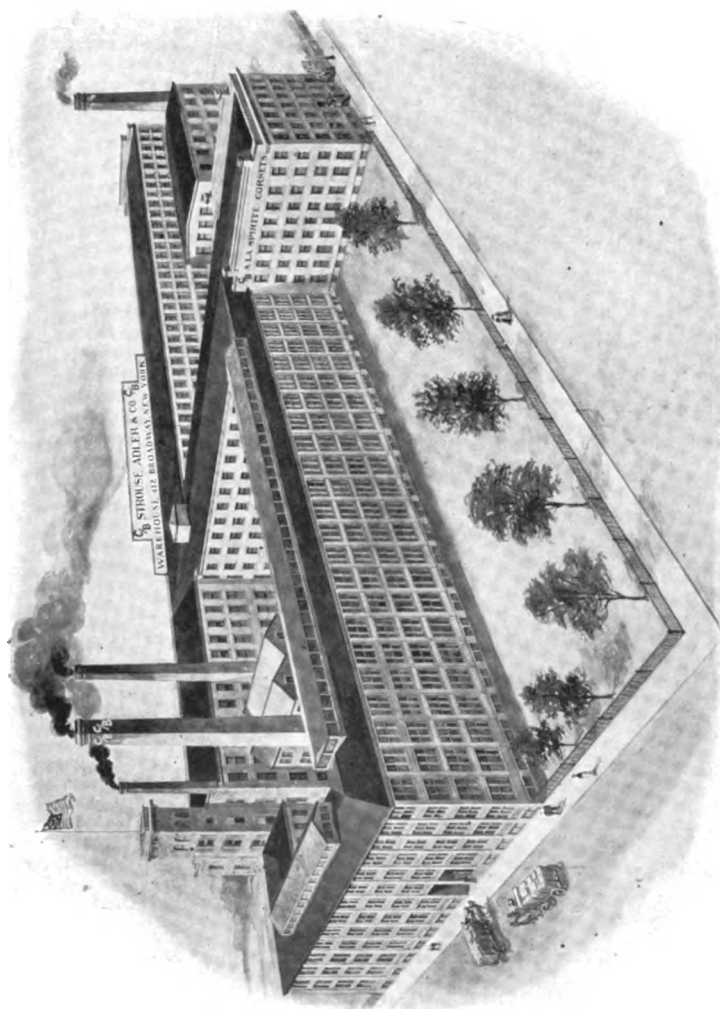
On October 1st, 1889, The Andrew B. Hendryx Co. was incorporated under the laws of the State of Connecticut with a full paid capital of \$125,000. President, Andrew B. Hendryx; secretary and treasurer, Edward N. Peck.

During the year of 1903 the company purchased the property adjoining on the south formerly occupied by the New Haven Chair Company, thereby more than doubling their original plant.

At the present time they manufacture 350 different styles and sizes of brass, bronze and japanned bird and animal cages, and in addition complete lines of fishing reels, artificial baits, chains and wire picture cord.

These goods are distributed widely throughout the United States and Canada, and exported in large quantities to almost every country in the world.

A bound catalogue of 385 pages is issued annually, fully illustrating and listing the various articles of manufacture.



STROUSE, ADLER & CO., NEW HAVEN.

STROUSE, ADLER & CO.,

NEW HAVEN.

Strouse, Adler & Co., New Haven, manufacturers of corsets, corset clasps, boning wires and paper boxes and converters and importers of all kinds of corset materials. Principal warehouse 412 Broadway, New York, with branches at Boston, Philadelphia and San Francisco.

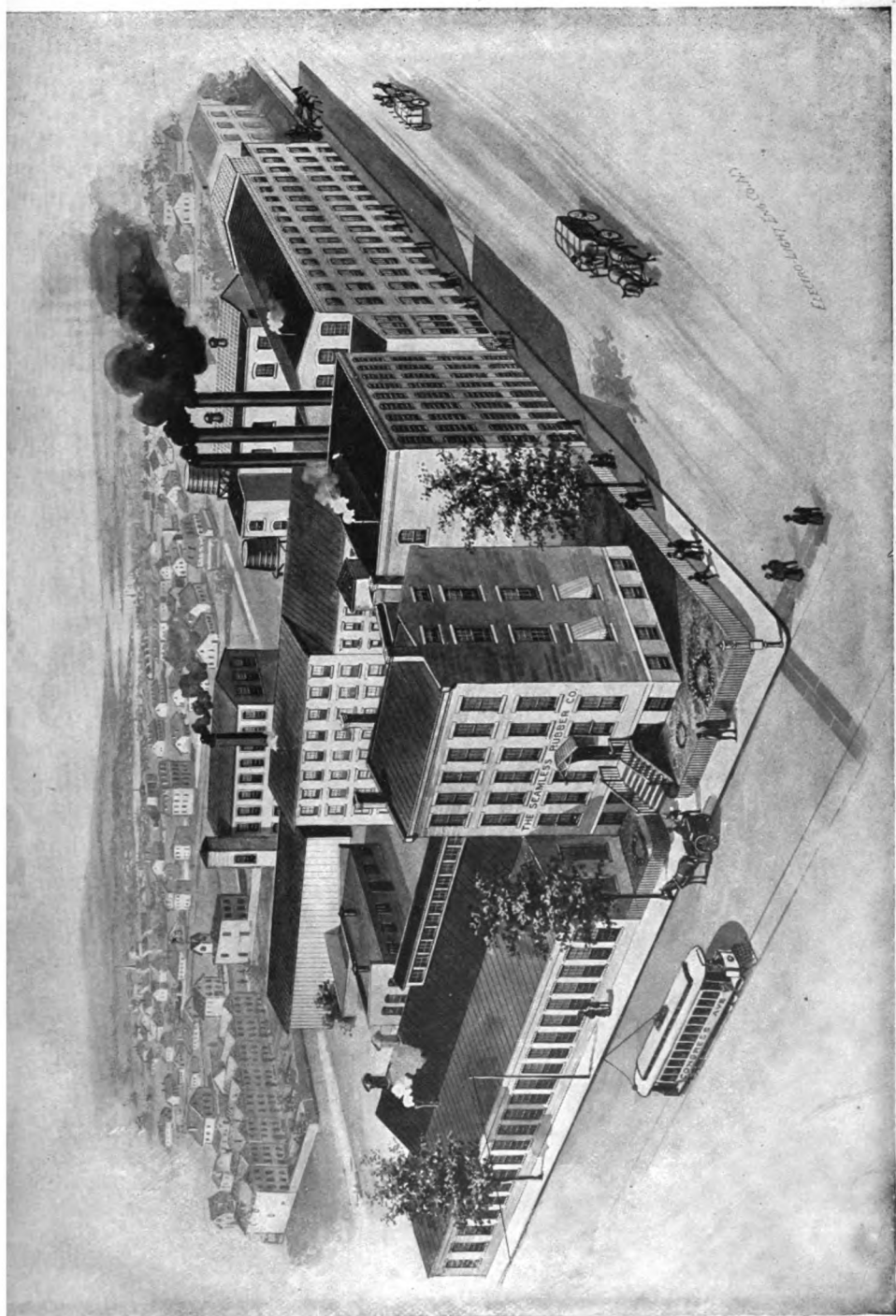
The business was established in 1862 in one room containing 1,250 feet of floor space, and has grown until today the factory buildings cover four and a half acres of ground containing 132,425 feet of floor space.

When the business was commenced only one style of corsets was manufactured, the daily production being about ten dozen. It has continually increased until the present time when the daily production has reached about 600 dozen, comprising a variety of nearly 500 styles and shapes adapted to the varied requirements of different figures and made from a great variety of materials, from the ordinary corset jean to the finest brocaded silks.

The company convert all the cotton goods consumed and manufacture the corset clasps, side steels, boning wires, paper boxes and many other materials used in the manufacture of their corsets.

The finer corset materials such as coutil, batiste, silk, satin, and various brocaded figured novelties, many of which are woven especially for the purpose and not manufactured in the United States, are largely imported by the firm, they being the heaviest importers in the port of New Haven.

The machinery used is the latest and most improved obtainable, much of which was invented and built upon the premises. A large number of employes are given steady employment.



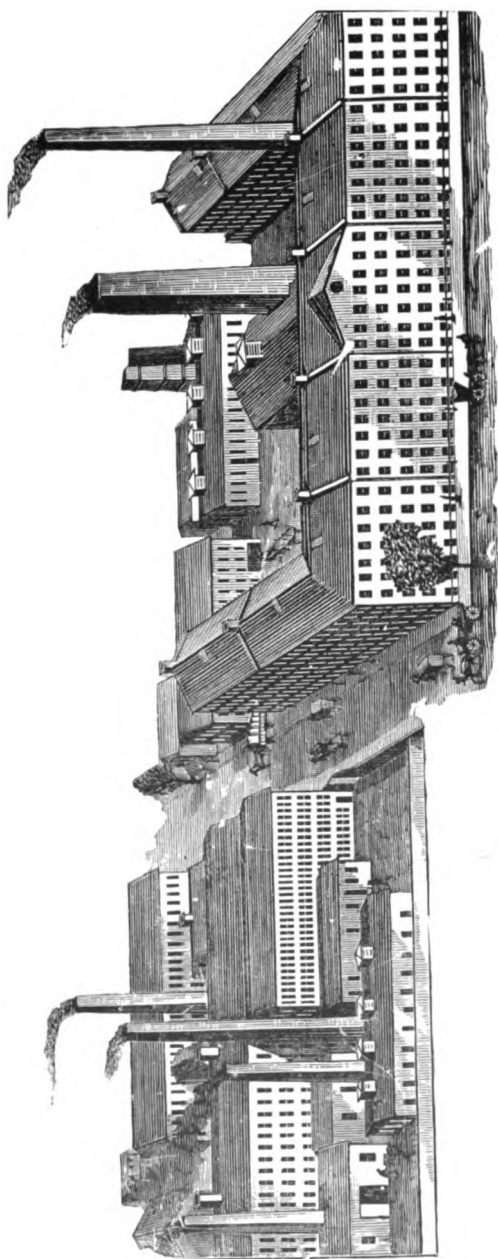
THE SEAMLESS RUBBER CO., NEW HAVEN.

THE SEAMLESS RUBBER COMPANY,

NEW HAVEN.

The Seamless Rubber Company was organized under the joint stock laws of the State of Connecticut in 1877 with a capital of \$50,000, which has since been increased from time to time to \$250,000, all paid in in cash. A small tract of land was purchased at New Haven in 1877 and they built a factory of about 2,500 square feet, which has been enlarged from time to time until the present working floor space is about 100,000 square feet. The present number of employes is five hundred and annual output three-quarters of a million dollars.

The first product of this company was the Seamless Rubber nipples which were manufactured under letters patent. These nipples proved a success from the start, and to-day the company is producing thousands of gross annually where originally the product could be figured in dozens. From seamless nipples they went to rubber hot water bottles, soft rubber syringes, rubber elastic bands, rubber gloves, hospital sheeting and a general line of rubber druggists' sundries. The company has also a hard rubber department, which produces the hard rubber pipes and fittings used for their syringes.



THE NEW HAVEN CLOCK CO., NEW HAVEN.

THE NEW HAVEN CLOCK COMPANY,

NEW HAVEN.

The New Haven Clock Company, originally known as Jerome & Co., was established in 1817, taking on its present name and organization in 1853. In the early days of its existence the goods manufactured consisted almost entirely of a line of square O. G. clocks and Gothics and there was but one shop building. Gradually the lines developed, more patterns were made, and the factory was increased until now the New Haven Clock Company occupies no less than eleven large buildings and seventeen smaller ones, the cut illustrating one of the older and smaller wooden shops. The plant now covers the greater portion of two city blocks and there is an area of something over 225,000 square feet of floor space.

The company makes over a million and a quarter clocks a year, the number of styles being nearly 1,000, although these styles and patterns vary from year to year.

The New Haven Clock Company manufactures what is known as a complete clock line consisting of nickel alarm clocks, shelf and mantel clocks, enameled blackwoods, enameled irons, gold plated novelties, regulators, veneers, hall clocks, chiming clocks, and a line of low priced watches. The Company hold the patents and are the sole manufacturers of the Tattoo Intermittent alarm clock and the Willcock chiming clock. Their line of low priced watches is also the most extensive in the field to-day, ranging from a key-wind watch up to a lady's small watch. They have offices or agencies in almost every quarter of the globe, and no matter where one journeys one is apt to see the familiar face of a New Haven clock.

The present officers of the company are: Walter Camp, President, Treasurer and General Manager; G. E. Stevens, Vice President, and F. J. Stevens, Secretary.

NEW HAVEN.

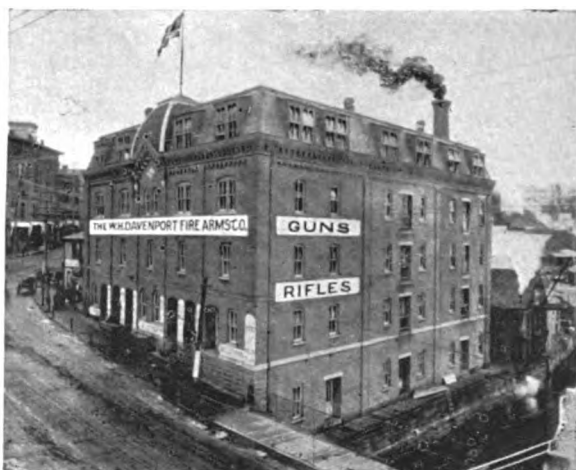
Following is some statistical data concerning the town of New Haven, which is taken from the United States Census report for 1900, issued in 1902:

All industries	1,236
Total capital	\$30,463,066
Salaries	\$1,590,241
Average number of wage earners	20,536
Total wages	\$10,016,571
Total miscellaneous expenses	\$3,181,004
Total cost of materials used	\$18,493,593
Value of products	\$40,762,015
Annual earnings per employe	\$487.76

THE W. H. DAVENPORT FIRE ARMS COMPANY,
NORWICH.

The W. H. Davenport Fire Arms Co., of Norwich, is an example of American enterprise which is typical of the age of progress. Its growth from the beginning has been unprecedented in the history of gun manufacturing, and is mainly due to careful and conservative management.

It is a recognized fact that the single gun trade has made a great advance in the past ten years, and that the popularity for all requirements is steadily increasing. The com-



THE W. H. DAVENPORT FIRE ARMS CO., NORWICH.

pany has been prompt to take advantage of all the opportunities of the market which is shown by their extensive line of fire arms, adapted as they are to all the requirements of the sportsman.

The company was formed in 1890 with a capital of \$10,000, and began operations with only about 800 square feet of space on the upper floor of the building now entirely occupied by them. The fire arms they intended to manufacture consisted of one single barrel shot gun of the drop block pattern and a 22 calibre rifle.

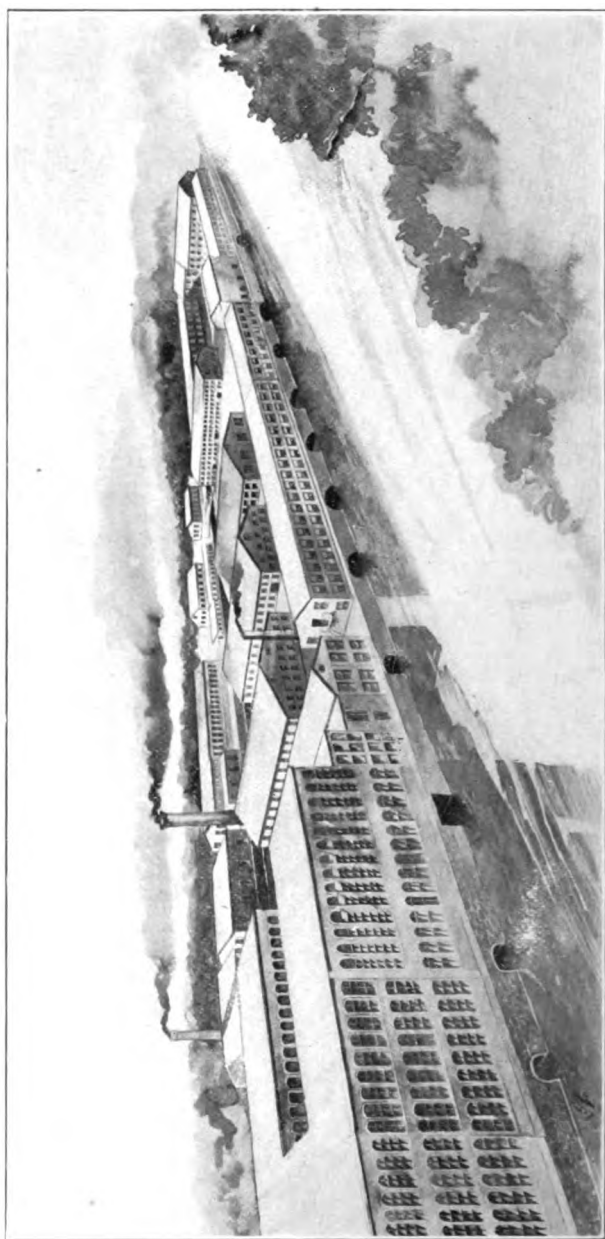
Their present capital is \$200,000, and the acquired floor space is over 40,000 square feet. The output comprises twenty different models and the factory is equipped to produce 320 guns per day, with a working force of 280 men.

The company are without doubt the largest manufacturers exclusively of single shot guns in this country both in number and variety, and their growth has been consistent with the increasing demand for their products.

Mr. William H. Davenport, whose experience covers a period of more than fifty years, is Vice-President of the company, and is the inventor and patentee of the various models and of many ingenious mechanical devices which have been used in their production.

It is safe to assume that the popularity of the Davenport guns and rifles will steadily increase and that the success of the past will be continued for many years.

The officers of the company are: Amos T. Otis, President; Wm. H. Davenport, Vice President; Henry H. Gallup, Treasurer; Walton C. Davenport, Secretary and General Manager.



UNITED STATES FINISHING CO., NORWICH.

UNITED STATES FINISHING CO.,

NORWICH.

The Norwich plant of the United States Finishing Company, located at Greenville, Norwich, Conn., was established in 1840. Later it was organized as the Norwich Bleaching and Calendering Co. In 1885 it was chartered as the Norwich Bleaching, Dyeing & Printing Co.

Its capital at the time of absorption by the United States Finishing Company in 1899 was \$500,000.00.

From the organization of the original company up to the present time no effort has been spared to keep the plant thoroughly equipped with the most modern machinery, and within the past three years the addition of a new building, one of the largest and finest of its kind in the country, has put this mill in a position to execute work of the very highest grade in the line of printing and finishing draperies, plain and fancy linings, lawns, dimities, shirtings, etc., its production being about 85,000,000 yards of these goods per annum.

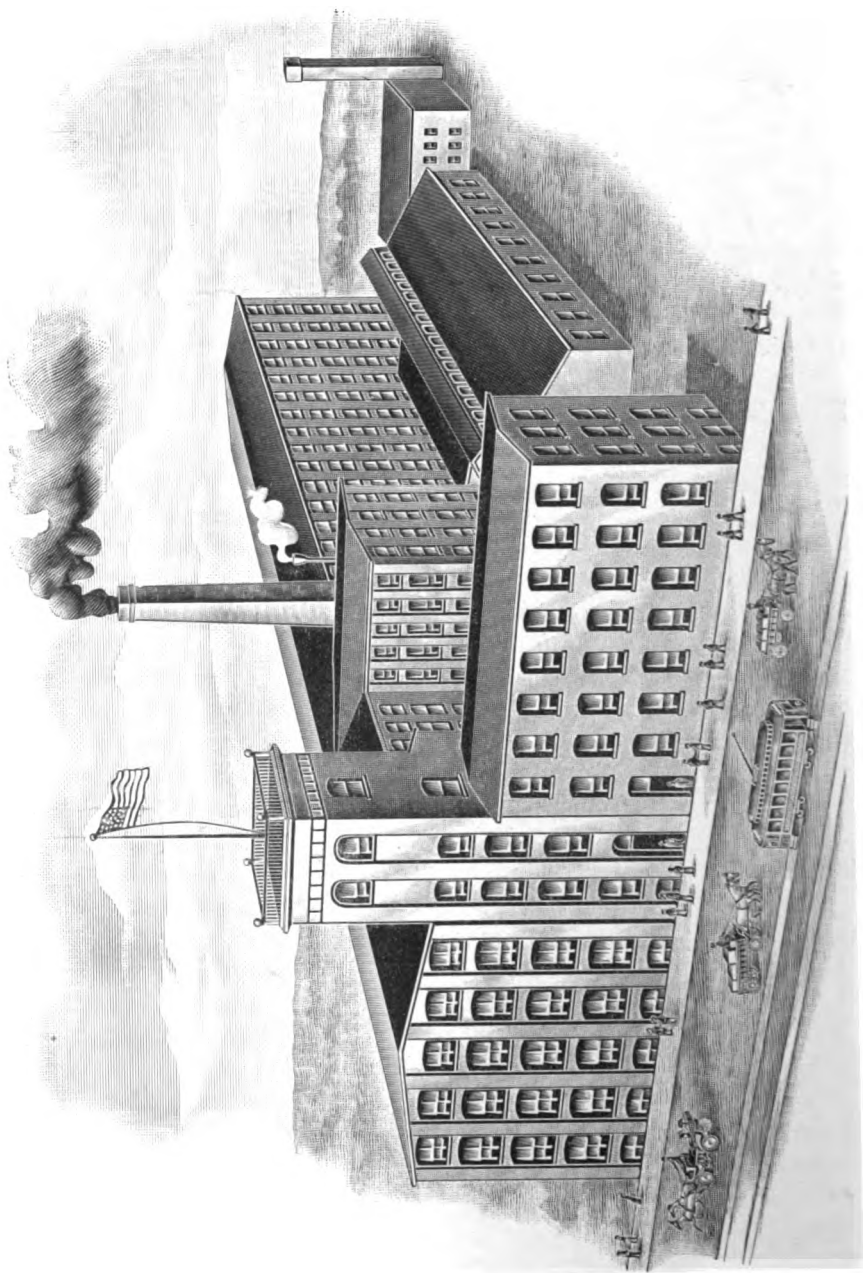
Thirteen printing machines are used, the motor power for which is electricity—625 horse-power being generated.

Seven water wheels, 2,500 steam horse-power, and 300 horse-power compressed air are employed.

The works occupy several acres of land; comprise some twenty buildings in all, with a pay-roll covering about 750 hands.

The President and General Manager of the United States Finishing Co., Mr. J. H. Wright, was formerly connected with the Reid & Barry Company of Passaic, N. J.

The Treasurer, Mr. J. Hunt Smith, was Treasurer and Manager of the Norwich Bleaching, Dyeing & Printing Company.



THE HOPKINS & ALLEN ARMS CO., NORWICH.

THE HOPKINS & ALLEN ARMS CO.,

NORWICH.

The Hopkins & Allen Arms Co., originated in 1867, by the association of a few practical mechanics, for the manufacture of pistols and revolvers, on a small scale, under the name of The Hopkins & Allen Manufacturing Co. Capacity and close attention, soon caused an expansion of the business, which steadily increased, resulting in the purchase of the premises now occupied by the Hopkins & Allen Arms Co. The business prospered till the company entered upon the manufacture of bicycles, when, as the result of the failure of the commission house handling their product, the company was compelled to liquidate. A new corporation—The Hopkins & Allen Arms Co.—was then (1898) formed, acquiring the property—real and personal—of the old company, and the business was reinstated.

Prosperity attended till the plant was practically annihilated by fire in February, 1900. The company was then reorganized—absorbing The Forehand Arms Co., of Worcester, Mass., new buildings were erected, new machinery installed and the output was materially increased, employing an average of over six hundred men. The factory has over eighty-five thousand square feet of floor space and manufactures 138 varieties of single and double barreled shot guns, rifles and revolvers, finding a market for its output in all quarters of the globe.

The property is pronounced by insurance experts to be one of the very best of modern construction, and every safeguard against fire has been installed, and proper consideration has been had for the safety and comfort of the employees, who, from the nature of their employment, are necessarily men of exceptional intelligence. The officers of the company are: Arthur H. Brewer, President; Charles H. Osgood, Vice President; Charles B. Lee, Secretary-Treas-

urer and General Manager, and Horace A. Briggs, Frank T. Brown, Willis A. Briscoe, Charles H. Preston, Archibald Mitchell, Gardiner Hall, Jr., Directors.

NORWICH.

Following is some statistical data concerning the town of Norwich, which is taken from the United States Census report for 1900, issued in 1902:

All industries	273
Total capital	\$8,566,437
Salaries	\$238,460
Average number of wage earners	4,411
Total wages	\$1,983,600
Total miscellaneous expenses	\$619,238
Total cost of materials used	\$4,321,078
Value of products	\$8,388,343
Annual earnings per employe	\$449.69

THE EAGLE LOCK CO.,
PLYMOUTH (TERRYVILLE).

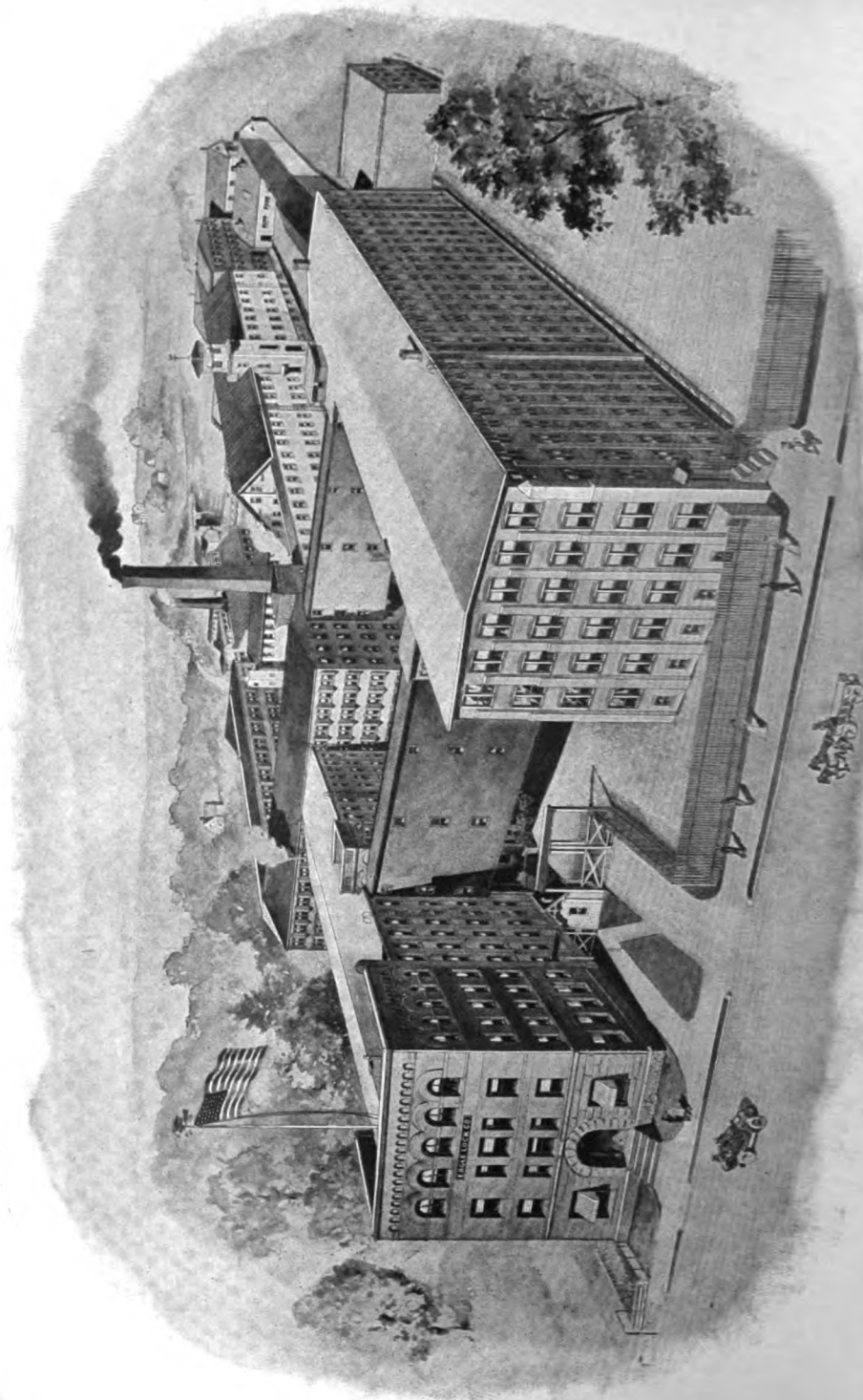
The Eagle Lock Co., a cut of whose factories at Terryville is presented herewith, is one of many similar Connecticut concerns which have grown from small beginnings, to industries of magnitude and importance.

Their predecessors began the manufacture of a few patterns of cabinet locks as far back as 1833 and after numerous changes in ownership a joint stock company was formed in 1854 under the present name.

Their line now comprises about three thousand varieties, and though cabinet locks are perhaps the principal style, they also make a complete line of trunk locks, padlocks, keys and blanks, special hardware and wood screws.

The factories contain about 225,000 square feet of floor space and give employment to nearly 1,000 people.

Their salesroom is at 105 Chambers street, New York.



THE EAGLE LOCK CO., TERRYVILLE.

HAMMOND, KNOWLTON & CO.,

PUTNAM.

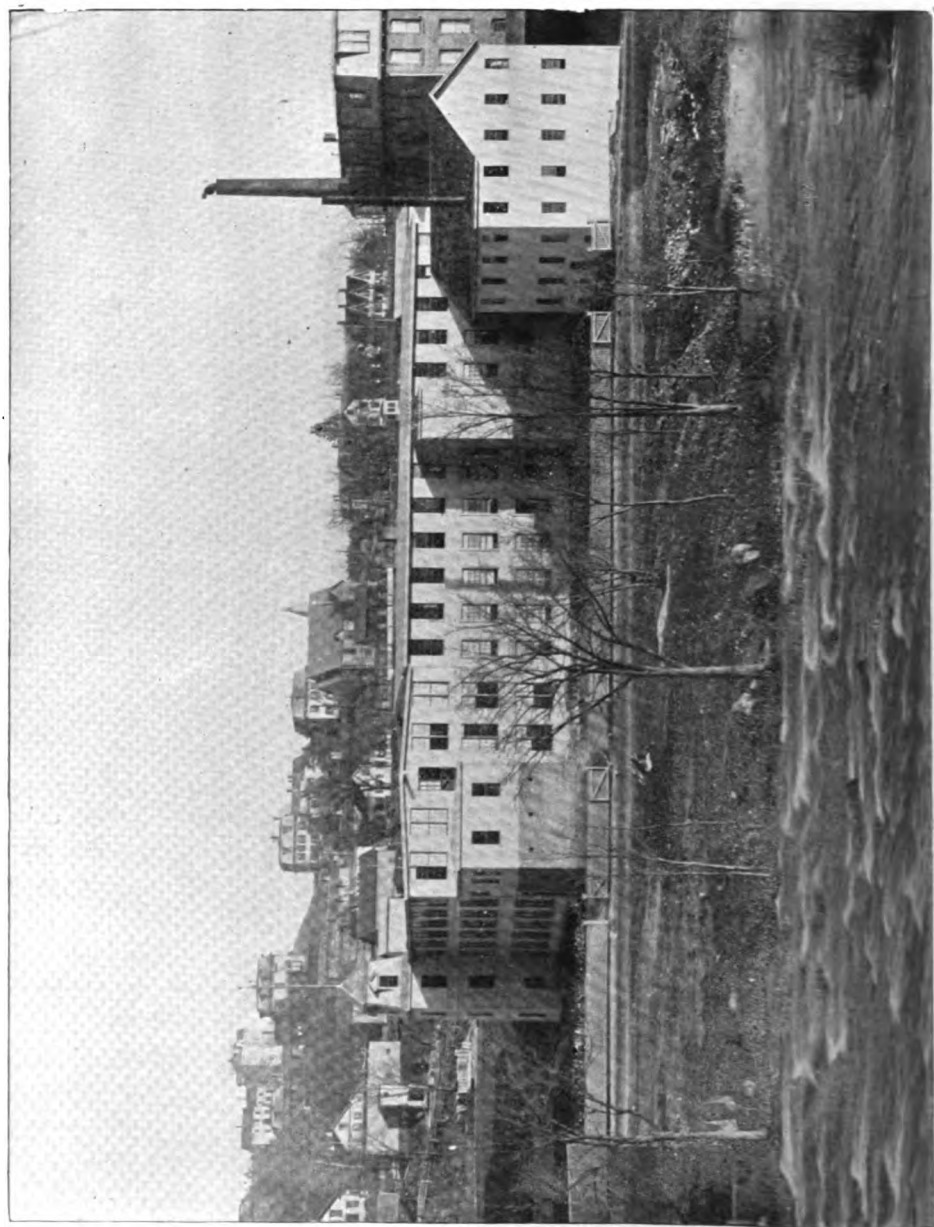
In July, 1878, a co-partnership, with G. A. Hammond of Putnam, Conn., and C. C. Knowlton, of New York, was formed for the manufacture of silk thread, and a factory building two stories high, 40x80 feet, was built in Putnam, Conn., for their use. Mr. Hammond, an experienced manufacturer, was to attend to the manufacturing, and Mr. Knowlton to do the selling.

They first employed about a dozen hands. As a result of seven years' labor it became necessary in 1885 to increase their plant, which was accomplished in the fall of that year, when they moved to a three-story building on Meadow street, 52x104 feet, after having built an addition thereto for use as a dye and boiler-house.

Salesrooms in Boston, Chicago, Rochester and Philadelphia having been established it became necessary, in 1892, to again increase their plant, which was done by the building of an addition which practically doubled their capacity. This firm was represented at the World's Columbian Exposition by a handsome display of their products, and their silks were used exclusively in the Model Shoe Factory, and in the manufacture of clothing, gloves, harnesses, etc., by the Singer Mfg. Co., and others at this exposition.

Hammond, Knowlton & Co. look back over their record of the past twenty-five years with pride; and justly, for certain it is that they have done a great deal to enhance the growth and prosperity of the city of Putnam. From a small beginning they have steadily worked their way to the front, and are now furnishing steady employment to upwards of 225 employees.

With the establishing of the several offices in different cities of the union they have opened up distributing centers for their product, which is everywhere acknowledged to be



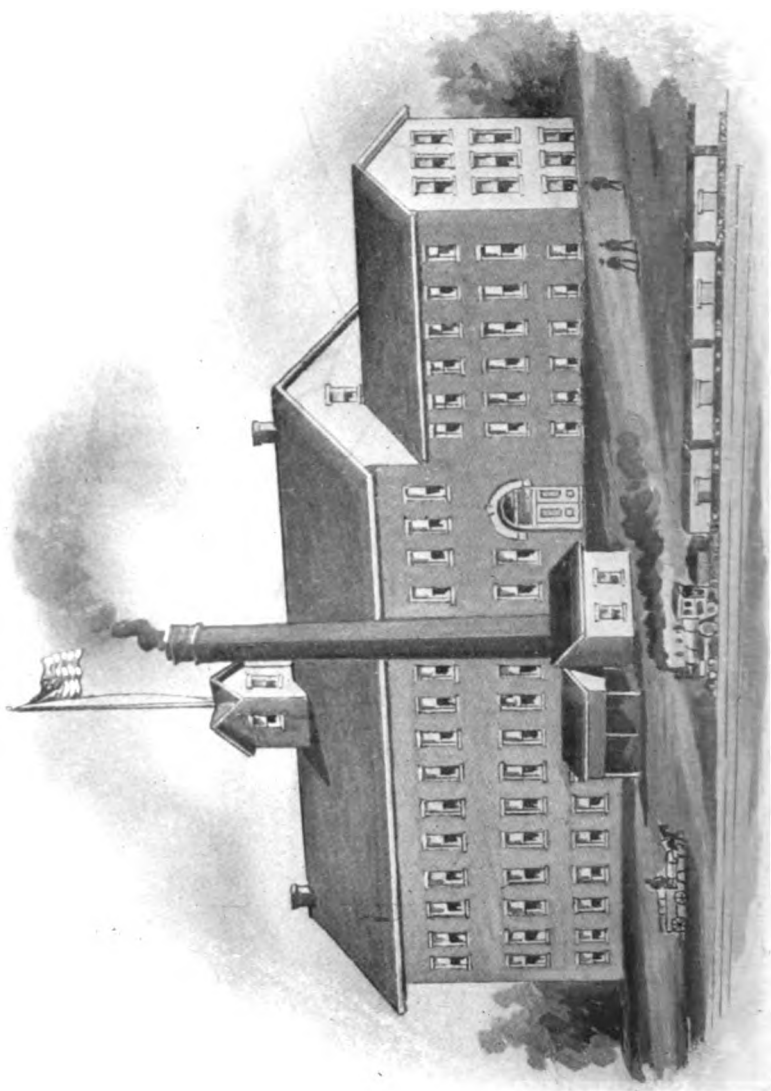
HAMMOND, KNOWLTON & CO., PUTNAM.

the leader. And so long as they adhere to their present motto, that "The best is none too good" for their patrons, it will be a talisman for success, and their market will continue to expand until their goods are known in every country on the globe.

PUTNAM.

Following is some statistical data concerning the town of Putnam, which is taken from the United States Census report for 1900, issued in 1902:

All industries	93
Total capital	\$2,019,685
Salaries	\$48,009
Average number of wage earners	1,631
Total wages	\$537,087
Total miscellaneous expenses	\$122,376
Total cost of materials used	\$1,097,136
Value of products	\$1,928,803
Annual earnings per employe	\$329.30



POTTER & SNELL, DEEP RIVER.

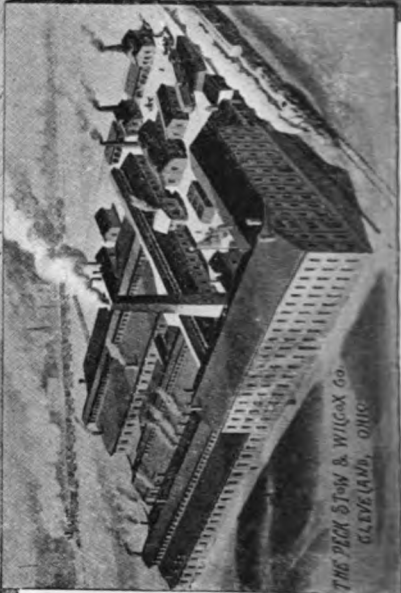
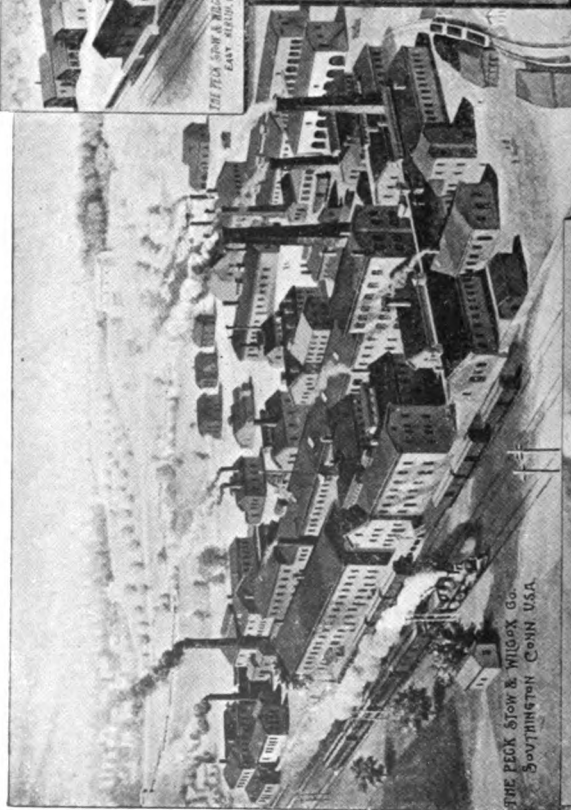
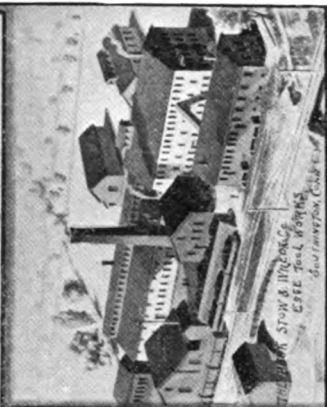
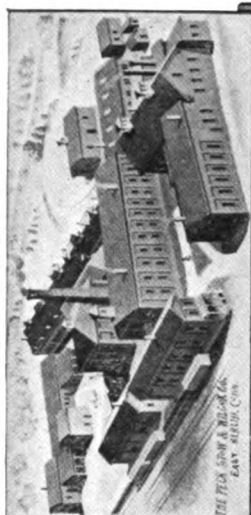
POTTER & SNELL,
SAYBROOK (DEEP RIVER).

One of the noted manufacturing concerns of the Connecticut river valley is that of Potter & Snell at Deep River. The products of their factory are bright wire goods and novelties, and since the purchase of the concern from the J. A. Smith Manufacturing Company in 1885 the business has been remarkably successful, their goods being sold throughout the United States, Canada, and in many European countries, their products having a first class reputation. The factory is located at what is known as "The Rock," only a few rods from the steamboat landing and is three stories high, 120 feet long and 40 feet wide. Employment is given to about fifty persons the year round.

Matthewson W. Potter, the senior member of the firm, is one of the well known public men of this section of the state, having a wide acquaintance with public and business men of Connecticut. He came to Deep River in 1881 and entered the employ of Pratt, Read & Company, where he remained until 1885, when the present copartnership of Potter & Snell was formed.

Henry M. Snell, junior member of the firm, came to Deep River in 1884, and was employed by Pratt, Read & Company, and remained with that concern until he formed the partnership with Mr. Potter.

Mr. Snell has a reputation of a high order for business probity throughout the state, and is recognized as one of the leading citizens of Middlesex county.



PECK, STOW & WILCOX CO.,

SOUTHINGTON.

The origin of the Peck, Stow & Wilcox Co. dates back to 1797. In that year Seth Peck, of Southington, Conn., commenced the manufacture of Tinsmiths' Machines, to take the place of hand tools exclusively used by tinsmiths before that date. By gradual growth the following firms have succeeded to that business: Seth Peck & Co., O. & N. Peck, Peck, Smith & Co. and the Peck-Smith Mfg. Co.

Up to this time the sole manufacture was tinsmiths' tools and machines. By 1870 the S. Stow Mfg. Co. of Plantsville, and the Roys & Wilcox Co. of East Berlin were competitors in that business. In December, 1870, these three firms united and formed a joint stock company under the name of the Peck, Stow & Wilcox Co. In 1880 the firm was incorporated by special act of the General Assembly with an authorized capital of one and a half million dollars. Within a year that amount of capital was all paid in and Wilcox, Treadway & Co., of Cleveland, O., was absorbed by the firm.

The company now has factories in Southington, Plantsville and East Berlin, Conn., covering a floor space of about two hundred and sixty thousand square feet, and factories in Cleveland, O., covering about eighty-nine thousand feet more, making in all about seven and a half square acres.

Tinsmiths' tools and machines still constitute a prominent portion of the company's product, but a varied line has been gradually added. This now embraces as its principal items, carpenters, machinists and blacksmiths tools, housekeeping implements such as meat and food cutters, coffee mills and scale beams and a varied assortment of builders' hardware.

SOUTHINGTON.

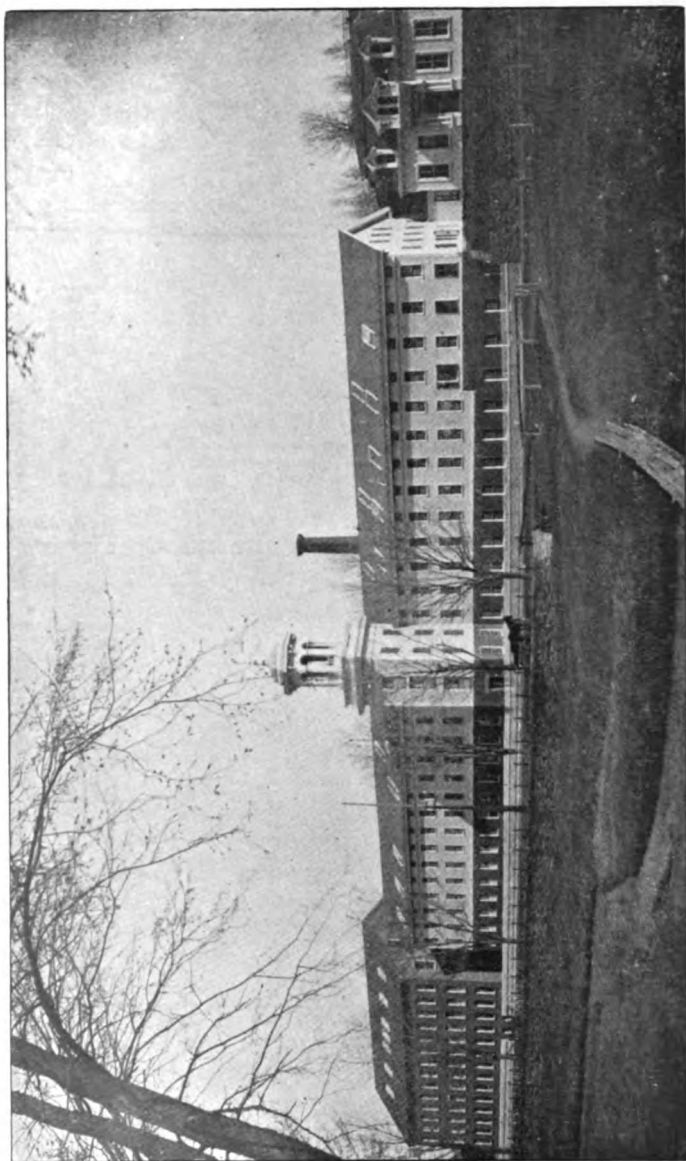
Following is some statistical data concerning the town of Southington, which is taken from the United States Census report for 1900, issued in 1902:

All industries	65
Total capital	\$2,783,709
Salaries	\$103,422
Average number of wage earners	1,415
Total wages	\$627,604
Total miscellaneous expenses	\$112,884
Total cost of materials used	\$797,102
Value of products	\$1,994,564
Annual earnings per employe	\$443.54

THE HOCKANUM MFG. CO.,

VERNON (ROCKVILLE).

One of the oldest and most important of the manufacturing establishments in Tolland county is the Hockanum company located at Rockville in the town of Vernon. The organization of this company dates back to 1836. The original incorporators were: Lebbeus P. Tinker, President; Alonzo Bailey, Secretary; Austin Holt, Agent; Ralph Talcott and Bickford Abbott. The original capital was \$7,500, which was soon afterwards increased. The establishment comprised two buildings, 40x40 feet each in size, and two sets of machinery were run, manufacturing satinets. That was sixty-seven years ago. The old buildings have been replaced by larger and more elegant structures. The original incorporators have passed away; new faces, advanced ideas, expensive machinery, and a higher standard of excellence for the productions, have taken the place of those of 1836, and a new impetus and a modern business atmosphere pervades the whole establishment. The main mill, adjoining which is the office, was built about the year 1849. The basement is of brick; the remainder of the structure of wood. It is 36x200 feet in size and three stories and attic in height. In 1873 an extension of fifty feet in length was added. In 1881 a brick mill was erected, west of the original building, which is 50x116 feet in size, and of the same height as the main building. A few rods below is the old Saxony mill, now owned and run by this company which is 34x120 feet in size, and is two stories high, with basement and attic, the basement being of brick and the other parts of wood. An elegant business office adjoining the first-named mill was built in 1880, and is a model of convenience and artistic furnishing. The finer grades of cassimeres and worsteds are turned out here and in such quantities as to give employment to 325 people. Two water



THE HOCKANUM MFG. CO., ROCKVILLE.

powers are monopolized, the number of feet fall being eighteen and twelve, respectively. In addition, two engines, one of eighty and the other of sixty-horse power, are made use of.

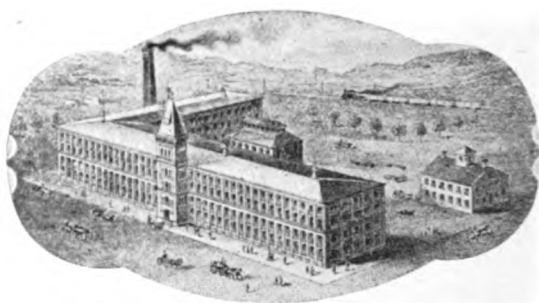
The present structure consists of a main building 36x250 feet in size, with auxiliary buildings 50x116, 34x120, 60x110 feet, all three stories in height (the last named building is used for finishing exclusively), the whole plant having 76,440 square feet of floor space and a capacity for the employment of 400 persons.

THE SPRINGVILLE MFG. CO.,

VERNON (ROCKVILLE).

The Springville Manufacturing Company, one of the youngest of Rockville's many flourishing mills, turns out annually about 450,000 yards of the finest fancy worsted cloth for men's wear made anywhere in the country.

The present mill was built in 1886 and the company started up in 1887. The mill is an imposing brick structure with brown stone trimmings, 40x300, four stories high, with an ell, 55x110. In the center a tower rises to a height of 125 feet, and the chimney is of equal height. The mill is exceedingly well lighted through large windows and at night by



THE SPRINGVILLE MFG. CO., ROCKVILLE.

gas and electricity. It is equipped with elevators and dumb waiters, and in every room there are automatic sprinklers as a protection against fire. There are also iron fire escapes, reaching from the roof to the ground, and as an additional protection the employers maintain a well organized fire department with 800 feet of fire hose, which is kept in the tower ready for immediate use.

The mill is equipped with the most modern machinery, including 114 broad looms. Power is obtained from an extensive steam plant, consisting of three 122-horse power boilers and 100-horse power engines, and from the Hockanum river, with a Victor turbine water wheel with a fall of about sixteen feet. Since the mill was first built constant

additions have been made to the plant to meet the increasing demand for the goods which are distributed to the jobbers through the company's New York house.

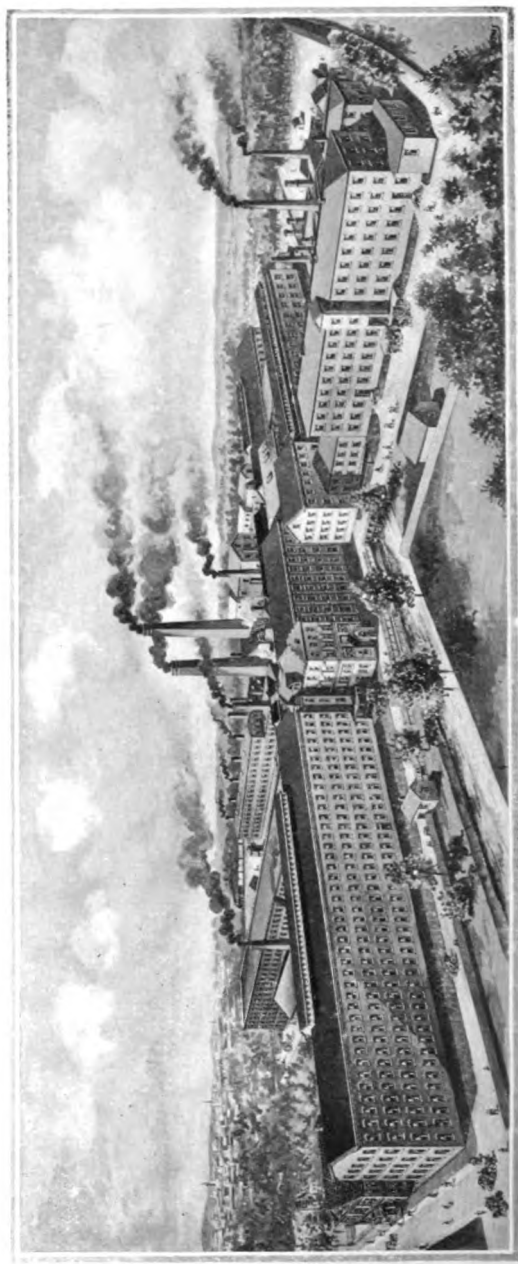
The Rockville mill occupies the site where formerly stood the old wooden mill of the original Springville Company, which was started in 1833. The old mill has been moved back and is now used as a storehouse.

The late George Maxwell, and George Sykes, also deceased, were the founders of the present company, which they organized and then bought out the old plant.

The cloth made at these mills competes with the best imported goods, and is recognized as the standard cloth in this country.

President Harrison wore a suit of clothes made from cloth woven at the Springville mills on the occasion of his inauguration, in March, 1889.

In 1903 the company added another structure to its extensive plant, it being a four-story brick building, 55x80 feet in size. The floor space used by this company for manufacturing purposes aggregates 90,000 square feet and it furnishes employment for about 325 persons.



R. WALLACE & SONS MFG. CO., WALLINGFORD.

R. WALLACE & SONS MFG. CO.,

WALLINGFORD.

The R. Wallace & Sons Mfg. Co. was founded by Robert Wallace in 1835, the business being at that time conducted solely by himself and consisting of the manufacture of German silver flatware alone. Later a partner was taken, and the firm became known as Robert Wallace & Co. In 1871, Mr. Wallace with his sons formed a new company, R. Wallace & Sons Mfg. Co., and at this time other lines were added, the principal ones being those of sterling silver flat and hollow wares and plated hotel hollow ware. Under the careful management of Mr. Wallace and his successors (Robert Wallace died Jan. 1st, 1892), the factory gradually grew to its present size, employing more than 900 hands, and with a daily capacity of over 24,000 dozen spoons, forks, etc., to say nothing of the output of hollow ware, both sterling and plated.

The aggregate floor space now used for manufacturing purposes is 170,000 square feet, or nearly four acres. The capital employed is over one million dollars.

The present officers of the company are: F. A. Wallace, President; W. J. Leavenworth, Treasurer; H. L. Wallace, Secretary; C. W. Leavenworth, Assistant Treasurer; C. D. Morris, Superintendent.

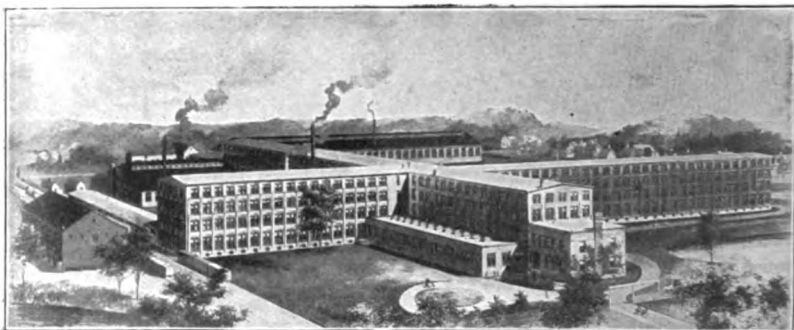
WALLINGFORD.

Following is some of the statistical data concerning the town of Wallingford, which is taken from the United States Census report for 1900, issued in 1902:

All industries	73
Total capital	\$5,382,134
Salaries	\$285,197
Average number of wage earners	2,270
Total wages	\$1,160,551
Total miscellaneous expenses	\$268,756
Total cost of materials used	\$2,813,410
Value of products	\$5,238,280
Annual earnings per employe	\$511.26

AMERICAN PIN CO.,
WATERBURY (WATERVILLE).

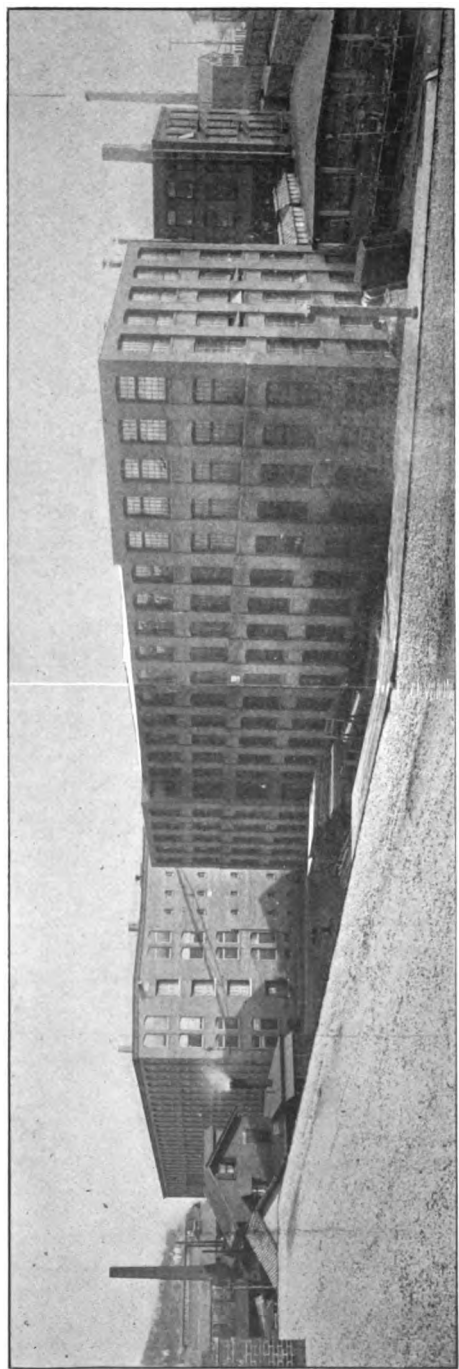
The concern under the name of the American Pin Co. was organized as a corporation in 1846 and did business on East Main street, in Waterbury, until 1893, when those buildings which had been in use since the organization of the concern, gave out. The original business of the American Pin Co. was the making of pins and hooks and eyes, but in 1894 the concern was moved to Waterville, equipped with new buildings and a large amount of new machinery, and



AMERICAN PIN CO., WATERVILLE.

its business to-day is made up of pins, safety pins, hooks and eyes, and a miscellaneous line of light brass goods. The floor space occupied by the concern when on East Main street was in the neighborhood of 50,000 square feet of available room. To-day the floor space is nearly 100,000 square feet.

The officers of the concern to-day are Mr. A. M. Blakeslee, president; George A. Driggs, Secretary, Treasurer and General Manager.

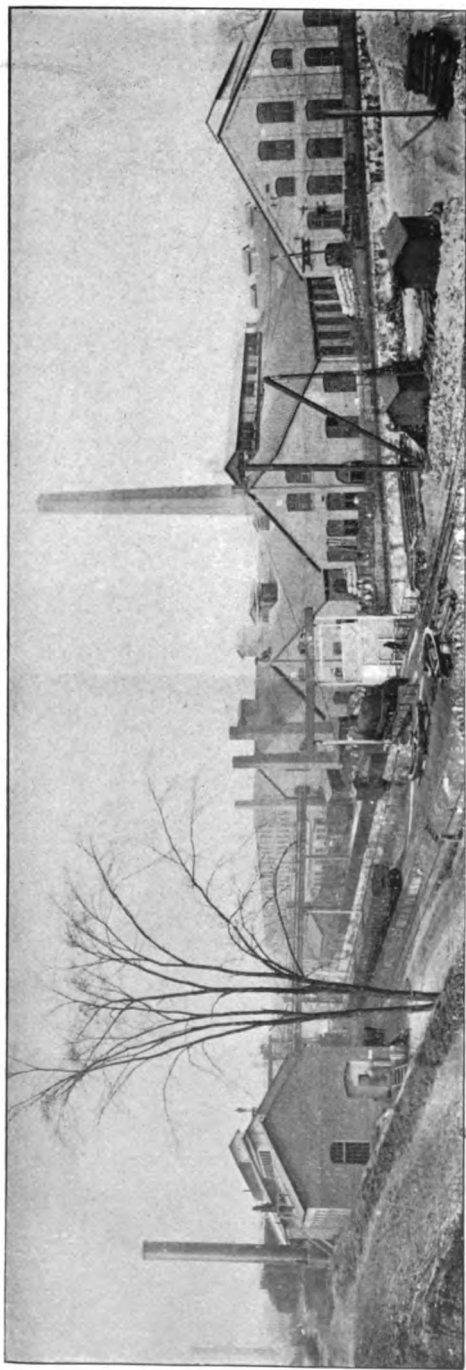


SCOVILL MANUFACTURING CO., WATERBURY.

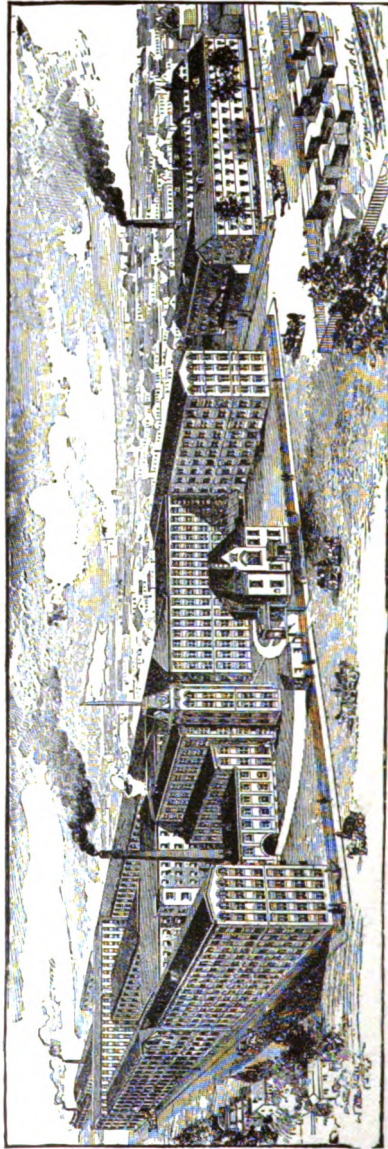
SCOVILL MANUFACTURING CO.,

WATERBURY.

One of the greatest industries in New England is the Scovill Manufacturing Co. of Waterbury. The business was established in 1802 and for over a century the name of Scovill has been widely identified with the business world. The ground area of space covered by the many buildings of the plant represent a city in itself both in size and number of skilled workmen employed, an army of some 3,000 being steadily engaged. It is one of the largest and most perfectly equipped brass rolling mill and metal goods manufacturing establishments in the world. Among the many specialties that the company manufacture may be mentioned brass and German silver in sheets, rods, tubing and wire; hinges, narrow, middle, broad, desk, ship, stop, spring and pianoforte; coin and coin planchets, full equipment for supplying planchets in any required alloy; buttons, military, naval, livery, society, railroad, school, lasting, silk and dress; aluminum (pure) in ingots, sheets, rods and wire; lamp goods, German student lamps, kerosene burners, kerosene lamps, bicycle goods, pumps, oilers, etc.



SCOVILL MANUFACTURING CO., WATERBURY.



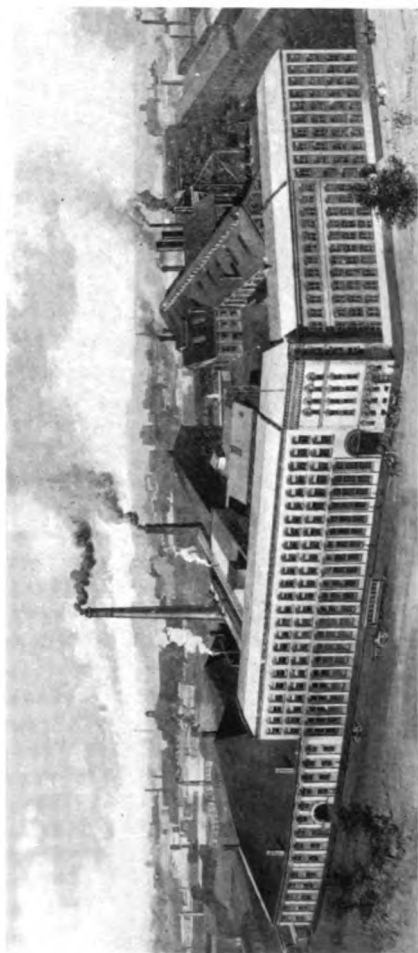
WATERBURY CLOCK CO., WATERBURY.

WATERBURY CLOCK CO.,

WATERBURY.

The manufacture of clocks was commenced by the Benedict & Burnham Manufacturing Co. as a branch of their business. On March 5th, 1857, a separate corporation was organized under the above title. The growth of the company was slow until 1885, at which time they had about 360 employes. March 31st, 1885, H. L. Wade was elected President and Treasurer, and Irving H. Chase, Secretary. From this date the concern has had a phenomenal growth and to-day is the largest clock company in the world; employing over 2,300 employes and covering about 425,000 square feet of floor space, equal to nearly eight and one-half acres. They are manufacturers of all grades of weight, lever and pendulum clocks; also the famous Ingersoll \$1.00 watch.

At the present time they have under construction four large additions to the plant, aggregating 55,000 square feet. The present output of time-pieces is at the rate of 4,000,000 per year.



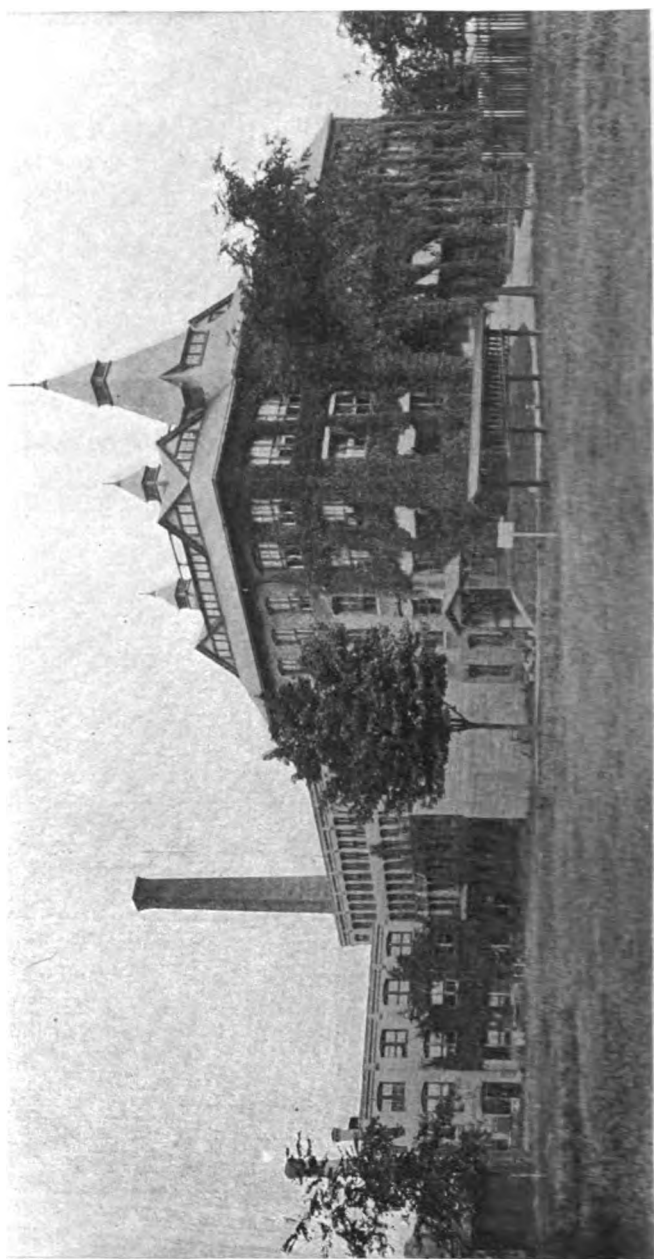
THE WATERBURY FARRELL FOUNDRY & MACHINE CO., WATERBURY.

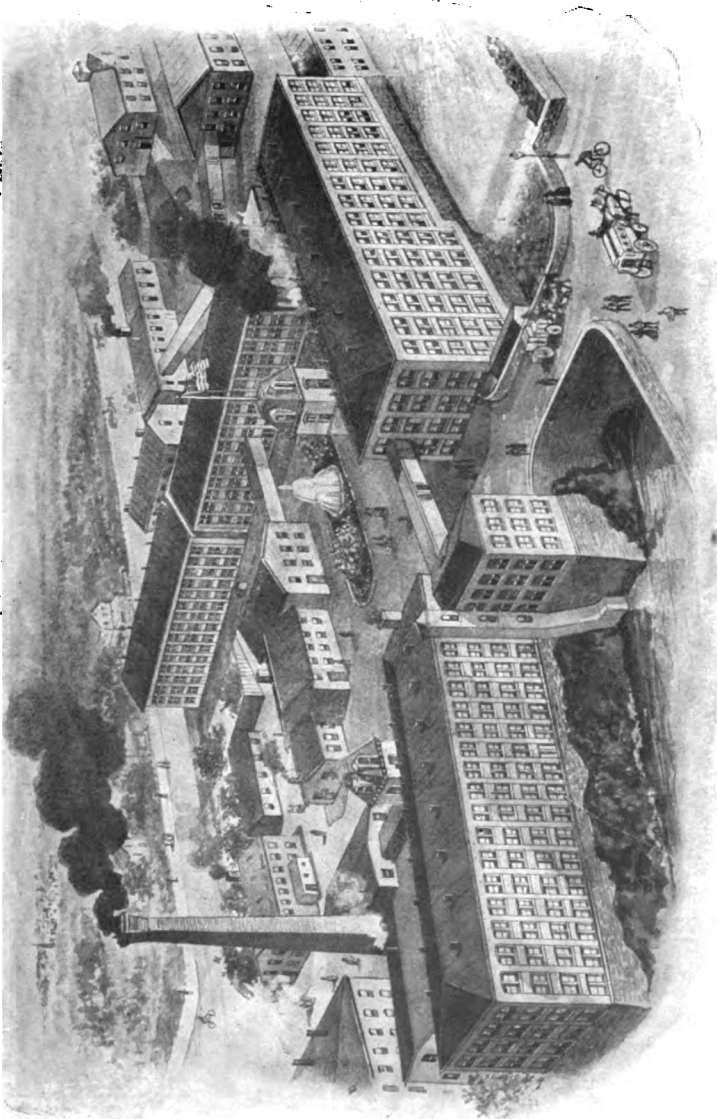
WATERBURY FARREL FOUNDRY & MACHINE CO.

WATERBURY.

The plant of the present Waterbury Farrel Foundry & Machine Co., of Waterbury, was started in 1851, and in 1857 was conducted in connection with the Ansonia Foundry under the name of the Farrel Foundry & Machine Co., and so continued until 1880. In the latter year the present company was organized as the Waterbury Farrel Foundry & Machine Company. The shop like many others in New England had no especial choice out of the many outlets for the stock of ingenuity and undertook a varied assortment of work in order to keep the business moving in the direction of a probable profit. When times were dull and orders scarce the men were employed on such equipment as the working demands of the plant would digest and the management built vertical millers, traversing head shapers, and other machine tools. Some of these tools are of ruggedly substantial design and are profitable machines even at this much later date. The plant has never lost this adaptable faculty and to-day the product has an extensive range. Machinery for rolling mills, wire drawing, tube making, thread rolling and cold heading is made in many forms and sizes. Automatic nut machines, power presses, shears, automatic forging drops, hinge machines, cartridge machinery, hydraulic tools, presses, accumulators and pumps, special machinery for the manufacture of cigars, cigarettes, etc., are all regularly undertaken as demand arises.

The men at the head of affairs have been with the company for many years. William E. Fulton is President and Treasurer, George B. Lamb Vice President and General Manager, and David C. Griggs Secretary. The western office is at Cleveland.





W.M. L. GILBERT CLOCK CO., WINSTED.



THE J. R. MONTGOMERY CO., WINDSOR LOCKS.



THE J. R. MONTGOMERY CO., WINDSOR LOCKS.

THE NEW ENGLAND WATCH COMPANY,

WATERBURY.

The original plant of the New England Watch Co. was small, but the rapid growth of the business demanded larger quarters, until now the establishment, cut of which is shown on page 350, is one of the largest in New England.

Every part of a watch, case, dial and movement is made here, and watches of every size, grade and price for both ladies and gentlemen's use are turned out by the thousands.

Large and well stocked branch houses are maintained in New York, Chicago, San Francisco and London and serve as the distributing centers for their respective territories. Recently a branch house has been opened in Manila which does a large and profitable business.

The officers of the New England Co. are: Edward L. Frisbie, Jr., President; Arthur O. Jennings, Secretary and Treasurer; C. B. Churchill, Assistant Secretary, and C. S. Chapman, Assistant Treasurer.

The capital stock of the company is \$750,000 and its standing is of the highest.

WATERBURY.

Following is some statistical data concerning the town of Waterbury, which is taken from the United States Census report for 1900, issued in 1902:

All industries	404
Total capital	\$23,421,640
Salaries	\$1,005,814
Average number of wage earners	14,914
Total wages	\$7,564,198
Total miscellaneous expenses	\$1,664,050
Total cost of materials used	\$19,821,401
Value of products	\$33,778,905
Annual earnings per employe	\$507.19

WM. L. GILBERT CLOCK CO.,

WINCHESTER (WINSTED).

This business was established in 1825 and since then has had a steady and prosperous growth. The total amount of floor space in their factories at present is about 123,000 square feet; they employ between 600 and 700 people; 450 styles of clocks, ranging in price from sixty cents to \$100 each are made, with an annual production of about half a million clocks, a large number of which are exported to foreign countries, including Russia, China, Japan, Africa, Australia, England, France, Germany, Canada and South America.

The capital stock of the company is \$300,000, and they have a surplus of \$200,000.

The present officers of the company are: James G. Woodruff, President and Treasurer; George B. Owen, Vice-President and General Manager; Eugene S. Brown, Secretary, and Arthur W. Owen, Assistant Treasurer.

They have offices in New York, Chicago, San Francisco, Philadelphia and Boston.

A view of their factory appears on page 351.

 WINCHESTER (Winsted.)

Following is some statistical data concerning the town of Winchester, which is taken from the United States Census report for 1900, issued in 1902:

All industries	133
Total capital	\$2,971,429
Salaries	\$170,199
Average number of wage earners	1,746
Total wages	\$753,192
Total miscellaneous expenses	\$169,955
Total cost of materials used	\$1,529,704
Value of products	\$2,923,822
Annual earnings per employe	\$431.38

THE J. R. MONTGOMERY CO.,

WINDSOR LOCKS.

The firm of J. R. Montgomery & Co. was established in 1871, for the purpose of manufacturing cotton warps used in satinets and union cassimeres. The firm was composed of J. R. Montgomery as the active partner, with two others who constituted the partnership. A few years after the outside interests were bought by J. R. Montgomery, who continued the business under the old firm name, until in 1885, George M. Montgomery was admitted into the business as an active partner, and the line of manufacture was enlarged, taking up the making of novelty yarns, which was a new and unique line of manufacture. These yarns were made to give the peculiar knotted, loop, and spiral effects in ladies' dress goods, cloakings, and in men's wear goods, which have since become so popular.

This firm stands as the pioneer in this branch of the textile industry in this country, and it has grown steadily and rapidly, until its plant is of large proportions and so evenly adjusted in all its parts as to furnish it exceptional facilities.

As an illustration of the meaning, it should be said that the plant begins at the foundation in the making of novelty yarns, not only as to the treatment and manipulation of stock, but largely in the construction of machinery, all the special machinery requisite to produce the novel and peculiar effects being made at its own works.

In 1891, the firm of J. R. Montgomery & Co. was merged into a corporation under the name of The J. R. Montgomery Co., of which J. R. Montgomery, President, and George M. Montgomery, Vice-President and Secretary, are the active managers. A new cotton warp mill and an addition to the Novelty Mill was built. The capital of \$350,000 was invested in enlarging and increasing the scope of its business.

Two illustrations of their plant are given on page 352.

In 1896, this company were the pioneers in this country in placing upon the market the entirely new product, mercerized cotton yarn. While mercerized cotton was not, strictly speaking, a new thing (as the process was discovered fifty years ago by an English dyer who lived half a century before his time), the use of his process to produce the high lustre, silk-like effect was an entirely new discovery, and The J. R. Montgomery Co. were the first to recognize its value as a new product which has, in a very few years, become widely known and appreciated for its value and utility.

This company occupy about 130,000 square feet of floor surface, employ four hundred people and a capital of half a million dollars in the manufacture of their various lines of yarns and warps, and find a ready and increasing market for their products.

WINDSOR LOCKS.

Following is some statistical data concerning the town of Windsor Locks, which is taken from the United States Census report for 1900, issued in 1902:

All industries	37
Total capital	\$2,117,159
Salaries	\$53,051
Average number of wage earners	831
Total wages	\$331,402
Total miscellaneous expenses	\$87,298
Total cost of materials used	\$631,785
Value of products	\$1,311,768
Annual earnings per employe	\$398.80